



InformaCast Virtual Appliance Basic Paging[®]

Version 12.5.1

Quick Start Guide for a Cisco[®] Unified Communications Manager Environment

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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.”](#)

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 IP phones](#) if you intend to use them as recipients
- Use of one of the following supported browsers: Firefox 62, Chrome 70, MS Edge 44, 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: 10.0.1, 10.5.2, 11.0.1, 11.5.1, 12.0.1, and 12.5.1



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
- [API documentation](#)
- An [API quick start guide](#)
- 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.



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.

Deploy InformaCast

Singlewire supports InformaCast Virtual Appliance on the VMware ESXi platform, which is managed through the vSphere web client. This section describes how to import InformaCast Virtual Appliance using the vSphere web client. Your client can be downloaded from your VMware server.

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




Note If you are using InformaCast on the Unified 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 a web browser and log into your vSphere web client.

Step 3 Click the **Hosts and Clusters** icon and go to **Actions | Deploy OVF Template**.

Step 4 Click the **Local File** radio button, click its **Browse** button, navigate to where you saved the OVA file (or to the OVA file on the supplied DVD), select it, and click the **Open** button.

- Step 5** Click the **Next** button and enter a name for your virtual machine in the **Name** field, e.g. InformaCastWest.
- Step 6** Select a deployment location for your virtual machine from the **Browse** tab and click the **Next** button.
-  **Tip** It is good practice to place the Virtual Appliance on the same VLAN as your Unified Communications Manager.
-
- Step 7** Select a location from which to run your deployed template from the **Browse** tab and click the **Next** button. vSphere will validate that location.
- Step 8** Click the **Next** button.
- Step 9** Select a format and storage location for your deployed template and click the **Next** button.
- Step 10** Review your information and click the **Finish** button. InformaCast Virtual Appliance will begin importing.
- Step 11** Go back to your vSphere Web Client window and in the left pane, click the server hosting your InformaCast Virtual Appliance virtual machine.
- Step 12** Click the **Configure** tab.
- Step 13** Click the **VM Startup/Shutdown** link under **Virtual Machines**, then its **Edit** button.
- Step 14** Ensure the **Automatically start and stop the virtual machines with the system** checkbox is selected.
- Step 15** Select your virtual machine in the table and click the **Up** arrow to move it from **Manual Startup** to **Automatic Startup**.
- Step 16** Click the **OK** button in the Edit VM Startup and Shutdown pop-up window to save your changes. The InformaCast Virtual Appliance will now start and stop automatically with the server on which it's housed.
- Step 17** Right click your virtual machine in the vSphere Web Client window's left pane and select **Edit Settings**.
- Step 18** Click the **Network adaptor 1** dropdown arrow on the **Virtual Hardware** tab.
- Step 19** Ensure the **Connect At Power On** checkbox is selected.
- Step 20** Click the **OK** button in the Edit Settings pop-up window to save your changes.
- Step 21** Go back to your vSphere Web Client window, right click your virtual machine in the left pane and select **Open Console**.
- Step 22** Click the green arrow button to turn on the virtual machine.



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

When the InformaCast Virtual Appliance is done booting, you should see a request to select your product.

- Step 23** Leave your Singlewire InformaCast VM console window open and continue with “Set the Initial Configuration.”
-

Set the Initial Configuration

Once you have completed the steps in “Deploy InformaCast” on page 2-1, you will need to set InformaCast’s initial network configuration.

- Step 1** Return to your Singlewire InformaCast VM console window. You should see a request to select your product.
- Step 2** Press the **Tab** key followed by the **Spacebar** to select **Cisco Paging Server**.
- Step 3** Press the **Tab** key once to highlight the **Continue** button, then press the **Spacebar** to select it. You will be prompted to accept Cisco’s End User License Agreement (EULA).
- Step 4** Press the **Tab** key to highlight the **Accept** checkbox, then press the **Spacebar** to accept the EULA.
- Step 5** Press the **Tab** key twice to highlight the **Next** button, then press the **Spacebar** to select it. You will be prompted to accept Singlewire’s End User License Agreement.
- Step 6** Press the **Tab** key to highlight the **Accept** checkbox, then press the **Spacebar** to accept the EULA.
- Step 7** Press the **Tab** key twice to highlight the **Next** button, then press the **Spacebar** to select it. You will be prompted to assign a hostname to your server.
- Step 8** Enter a hostname for your InformaCast Virtual Appliance in the **Enter Hostname** field, e.g. InformaCastWest. This hostname will appear in Webmin’s user interface.
- Step 9** Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The InformaCast Virtual Appliance then attempts to use DHCP to find suitable IP addresses on your network. The Singlewire InformaCast VM console window refreshes.
- Step 10** Accept these IP addresses or provide valid ones of your own in the **IPv4 Address**, **Subnet Mask**, and **Default Gateway** fields.
- Step 11** Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.
- Step 12** Enter at least one DNS server IP address in the field provided or accept the one provided to you and enter a DNS domain name. Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.
- Step 13** Use the arrow keys to select a time zone for your InformaCast Virtual Appliance server.
- Step 14** Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The InformaCast Virtual Appliance then attempts to find an NTP server on your network. The Singlewire InformaCast VM console window refreshes.
- Step 15** Accept the suggested NTP server IP address or provide a valid one of your own in the **NTP Server 1 IP or Hostname** field.
- Step 16** Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.

Step 17 Enter the information necessary for a signed certificate (while the information is required, signing the certificate is not). A signed certificate, which can protect against Man-in-the-Middle (MITM) attacks, is an electronic document that proves ownership of a public key; it includes information about the key, its owner's identity, and the digital signature of a certificate authority (CA).

You must enter the information dictated by your certificate authority in its required form:

- Your organization's name, e.g. Acme Company
- Your organizational unit, e.g. Security
- Your city, e.g. Madison
- Your state or province, e.g. WI
- The alphabetic abbreviation for your country, e.g. US for United States
- An email address (optional)

Step 18 Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.

Step 19 Accept the common name of your server, which should be a combination of your hostname and your DNS domain name, or provide one of your own in the **Certificate DNS Name (hostname and domain)** field, then continue entering information for your signed certificate by entering any Subject Alternative Names (SANs) in the fields provided. SANs allow you to secure multiple domain names with one certificate, e.g. www.example.com, www.exchange.example.com, and www.example.net can all be secured through SANs.

Step 20 Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.

Step 21 Enter a password in the **Enter OS Admin Password** field, press the **Tab** key, and enter the password again in the **Re-enter OS Admin Password** field. Your OS credentials are used to enter Webmin and Control Center and when using SSH to access the InformaCast Virtual Appliance.



Note Your password must be at least six characters in length, and contain at least one lowercase letter, one number, and one of the following characters: !"#\$%&'()*+,-./:;<=>?@[\\]^_`. Also, when setting your password, you cannot use "changeMe."

Step 22 Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.

Step 23 Enter a password in the **Enter InformaCast and PTT 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.



Note Your password must be at least six characters in length, and contain at least one lowercase letter, one number, and one of the following characters: !"#\$%&'()*+,-./:;<=>?@[\\]^_`. Also, when setting your password, you cannot use "changeMe."



Note PushToTalk is only available to Advanced InformaCast users.

- Step 24** Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.
- Step 25** Enter a security passphrase in the **Enter Security Passphrase** and **Re-enter Security Passphrase** fields. This passphrase is used to secure your backups of the InformaCast Virtual Appliance. You must remember this passphrase. Singlewire Support personnel cannot recover it for you if it's lost.



Note Your passphrase must follow the same character requirements as your OS admin password.

- Step 26** Press the **Tab** key to highlight the **Next** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.
- Step 27** Press the **Tab** key to highlight the **Finish** button, then the **Spacebar** to select it. The Singlewire InformaCast VM console window refreshes.



Note There may be a short wait while your changes are written to disk.

Once your changes have been saved, the Singlewire InformaCast VM console window refreshes.

- Step 28** Make a note of the displayed IP address. This is the IP address of the InformaCast Virtual Appliance's landing page, which you will use to access the InformaCast Virtual Appliance, Control Center, and Webmin web user interfaces.
- Step 29** Close your open console window.

Access InformaCast Virtual Appliance

Open a web browser, enter the IP address of the InformaCast Virtual Appliance (which you made note of in Step 28 on page 2-5, and press the **Enter** key. The Singlewire landing 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.

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 | Device Settings | SIP Profile**, display all the SIP profiles, and click the **Standard SIP Profile** link.
- Step 9** Click the **Copy** button. Name the profile **ICVA SIP Profile** and select **Best Effort (no MTP inserted)** from the **Early Offer support for voice and video calls** dropdown menu (in Unified Communications Manager 10.0.1, the dropdown menu is instead the **Early Offer support for voice and video calls (insert MTP if needed)** checkbox).
- Step 10** Click the **Save** button.
- Step 11** Go to **Device | Trunk** and click the **Add New** button.
- Step 12** 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 13** 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 14** 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 the SIP profile you created in Step 9 from the **SIP Profile** dropdown menu.
- Step 15** Click the **Save** button.
- Step 16** Go to **Call Routing | Route Hunt | Route Pattern** to create a route pattern that uses the SIP trunk you just created.

- Step 17** 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 18** Click the **Save** button.
- Step 19** 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 20** 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 21** Click the **Save** button.
- Step 22** 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 23** Go to **System | Enterprise Parameters** and scroll down the page to the *Phone URL Parameters* area.
- Step 24** Make a note of the URL in the **URL Authentication** field. You may need this in Step 8 on page 3-2.

Step 25 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 26 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.



Note If you're using Unified Communications Manager 11.5.1 and later, scroll down the page to the *Security Parameters* area and select **Basic** from the **Authentication Method for API Browser Access** dropdown menu.

Step 27 Click the **Save** button.

Step 28 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 29 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 30 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 22 on page 2-7 for more information).

Step 31 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 25 on page 2-8.



Configure InformaCast

Configuring InformaCast involves logging in for the first time and setting up your phones' communication with InformaCast; they will become the recipients of your broadcasts.

Log into InformaCast for the First Time

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

-
- Step 1** Click the **InformaCast** link on the Singlewire landing 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 20 on page 2-7.
 - 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 9.0.1 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 9.0.1 or newer, you can continue using InformaCast Basic Paging. If you have a version of Unified Communications Manager prior to 9.0.1, 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 2-6. 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 2-6.
- 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 24 on page 2-7.
- 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 you have.
 - 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, fully qualified domain name, or subnet (in CIDR notation) of the host you want to include in the **Host or Subnet** 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. The same holds true when using a subnet: make sure that it specifies hosts that directly send INVITE requests to InformaCast.

- 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 2-6.
- 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 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 “Deploy InformaCast” 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 2-5 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 landing 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 "Deploy InformaCast" 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.



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