Here are some notes I put together that help avoid issues should you need to configure Informacast.

These notes were tested with CUCM 10.5.2 and Cisco Paging Server (Informacast) 11 in a lab environment. It is the responsibility of the person making configuration changes in their network to know the full impact of the configurations. This document does not remove the need to review official Cisco documentation as the information below supplements the official documents.

NOTE: This document provides many details that you can use, or change, however you see fit. Some examples are Application User names, partition and CSS names, SNMP string, etc...

**Configurations on CUCM**

**Enable and configure SNMP**

1. Login to your Cisco Unified Serviceability GUI
2. Navigate to tools > service activation and confirm the following services are running:
   1. Cisco CallManager
   2. Cisco TFTP
   3. Cisco CTIManager
   4. Cisco AXL Web Service
   5. Cisco CallManager SNMP Service
3. Confirm the SNMP service is running by navigating to tools > Control Center - Feature Services > selecting your CUCM servers and confirming the SNMP service says started and activated
4. Navigate to snmp > v1/v2 > community string
5. Select a server from the drop down menu then click find
6. Click add new
7. Do the following
   1. String = InformaCast (or whatever you want, be sure to remember exactly what you put)
   2. Accept packets from any host
   3. Privileges - read only
   4. Select the option to apply to all nodes

**Configure a region for Informacast / Cisco Paging Server**

1. Login to your CM Administration GUI
2. Go to system > region information > region and click add new
3. Name it INFORMACAST\_REGION (or whatever you want) then click save
4. Set the audio codec to be 64K and the video to be none. This should be done between the newly created region and all other regions on your CUCM. For example, if you have Building1\_Region and Building2\_Region, the relationship for those regions with INFORMACAST\_REGION should be 64K for audio and the video should be none. If you don't do this you may find yourself getting a reorder tone when trying to page the phones.
5. Save the configuration

**Configure a device pool for Informacast / Cisco Paging Server**

1. Go to system > device pool and click add new
2. Name it INFORMACAST\_DP (or whatever you want)
3. Select the INFORMACAST\_REGION
4. Select the appropriate values for any required fields then save the configuration

**Configure a partition for Informacast / Cisco Paging Server**

1. Navigate to call routing > class of control > partition then click add new
2. Name it INFORMACAST\_PT (or whatever you want)
3. Save the configuration

**Create a new CSS for Informacast / Cisco Paging Server**

1. Navigate to call routing > class of control > calling search space then click add new and select CTI Port
2. Name it INFORMACAST\_CSS (or whatever you want)
3. Add all of your partitions to this CSS minus the default partitions and the ones used for normalizaion
4. Save the configuration

**Create a new AXL control group for Informacast / Cisco Paging Server**

1. Navigate to user management > user settings > access control group (user group in older versions) then click add new
2. Name it InformaCast AXL User Group (or whatever you want) then click save
3. Use the related links section of the web page and select "Assign Role to Access Control Group) then click go then click assign role to group then click find
4. Select the standard AXL API access role and add it to your recently created access control group
5. Save the configuration

**Create an application user for Informacast / Cisco Paging Server**

1. Navigate to user management > application user > click add new
2. Make the user ID INFORMACAST (or whatever you want)
3. Use your team's standard password
4. Scroll to the bottom of the page and click add to access control group then add the following groups
   1. InformaCast AXL User Group
   2. Standard CTI Allow Control of All Devices
   3. Standard CTI Allow Control of Phones supporting Connected Xfer and conf
   4. Standard CTI Allow Control of Phones supporting Rollover Mode
   5. Standard CTI Enabled
   6. Save the configuration

**Enable web access on the phones you want to be able to page**

1. "Navigate to device > phone > then click find then click next
2. Select a phone you want to receive paging
3. Scroll to the bottom of the page and allow web access then save and apply the configuration
   1. A faster way to do this would be to navigate to device > device settings > common phone profile then click find and select the standard common phone profile to make the change there. Don't forget to reset after you save the configuration

At this point you make a choice about how to integrate InformaCast. You can either integrate using CTI route points, or a SIP trunk. Both options are listed below with the first option listed being CTI route points.

**Integration method 1: CTI Integration**

**(This method is not recommended as it is not as easy to troubleshoot when there are issues)**

**Configure route points for Informacast / Cisco Paging Server**

1. Navigate to device > CTI route point then click add new
2. Name it INFORMACAST (or whatever you want)
3. Add the INFORMACAST\_DP
4. Save the configuration
5. Click line 1 and enter the directory number while using the recently created partition (It must be a unique DN and not overlap with anything in use else where. For example this DN should not be assigned to any of the CTI Ports)
6. Make the alerting names and display names INFORMACAST
7. Save the configuration

NOTE: InformaCast can support multiple CTI route points as long as they are created in Communications Manager and associated to the InformaCast application user.

TIP: Instead of creating a CTI route point for every number you need for DialCasts, you could also add multiple lines to a single CTI route point. Another option would be to use wild card patterns to match a range numbers.

**Create CTI ports for Informacast / Cisco Paging Server**

1. Navigate to device > phone then click add new
2. Name it INFORMACAST1 (or whatever you want) then you can same your subsequent CTI ports INFORMACAST2, INFORMACAST3, etc...
3. Add the INFORMACAST\_DP
4. Add the INFORMACAST\_CSS
5. Set the owner to anonymous
6. Select the standard SCCP non-secure profile as the security profile
7. Save the configuration
8. Click line 1 then add the DN and put it in the INFORMACAST\_PT
9. Make the alerting names and display names INFORMACAST
10. Save the configuration and make more CTI ports if you want, increment the DNs by 1
11. Add the CTI route point and CTI ports as controlled devices on the INFORMACAST application user's configuration

**Integration method 2: SIP Integration**

**(This method is recommended)**

**Create a SIP trunk and route pattern for Informacast / Cisco Paging Server**

1. Navigate to device > trunk > add new and select the options to create a SIP trunk
2. Name it INFORMACAST\_SIP\_TRUNK (or whatever you want)
3. Associate it with the INFORMACAST\_DP
4. Run on all active nodes
5. Put the ip address of the informacast server as the destination address
6. Use the non-secure SIP trunk profile and the standard SIP profile
7. Save the configuration
8. Navigate to call routing > route/hunt > route pattern then click add new
9. Make the pattern a unique number and put it in the INFORMACAST\_PT
10. Select the SIP trunk you just created from the Gateway/Route List dropdown menu
11. Select the Route This Pattern radio button
12. Select OnNet from the Call Classification dropdown menu
13. Deselect the Provide Outside Dial Tone checkbox
14. Save the configuration

**Configurations on Informacast / Cisco Paging Server**

**Login to the Informacast server**

1. Browse to the webpage of your Informacast / Cisco Paging Server
2. There should be three option (this may vary based on version) and they are InformaCast, Initiate Intercom, and Access Application Management Tools. Click on InformaCast
   1. The initial login credentials for all interfaces are admin (login) and changeMe (password)
   2. Fill in the information for the required fields then click get started

**Change the administrator's password**

1. Navigate to admin > change password
2. Make the password your team's standard password
3. Save the configuration

**Configure the default CUCM cluster and discover IP phones**

1. Navigate to admin > telephony > CUCM cluster then click edit
2. Change the name if you want
3. Enter the credentials of your informacast application user
4. Select the option to use the application user for AXL
5. Leave the "AXL IP Address(es)" field blank
   1. "If you leave this field blank, InformaCast will attempt to find a server running the AXL service among those servers running the CallManager service."
6. Add your CUCM's IP address(es)
   * 1. "you can list all of their addresses, separated by commas"
7. Add the SNMP community string you recently created
   1. Be mindfull of the section that is titled XML Push Authentication
      1. http://<IPAddressOfYourPagingServer>:8081/InformaCast/phone/auth
      2. Please note that this URL will go in both the non-secure, and secure URL boxes in the enterprise parameters (keep it as http, don’t use https in the secure URL)  
           
         NOTE: If you have a device that requires the default CUCM URL, Informacast knows to send authentication requests back to the CUCM when needed. If you use a URL that is not the default authentication URL on CUCM, you will need to add the non-default URL to the section titled "XML Push Authentication" in Informatcast (Admin > Telephony > CUCM Cluster > Edit). If you have any questions, post them in the comments.
8. Save the configuration then log back into informacast with your new credentials (ir you get logged out). Once you login you should be at the CUCM Cluster page
9. Click on the link that says "refresh the Recipient Group list"
10. Click update then click update again and you should receive a message stating that the recipient group members have been updated.

NOTE: You should only see phones that are registered

**Add the broadcast dialing configuration**

1. Navigate to admin > dialcast > dialing configurations and click add
2. Make the dialing pattern the same as your recently created route point (if doing CTI integration method with CUCM) or the same as the recently created route pattern (If doing the SIP integration method with CUCM)
   1. If you are doing the SIP integration method, make sure you read the section "Allow For SIP Access If Using SIP Integration"
3. Select the intended recipient group
4. Save the configuration

Please be advised that only registered phones will show in InformaCast when CUCM is polled.

**Allow For SIP Access If Using SIP Integration**

This is only needed if you did the SIP integration method. If you did the CTI Route Point method (JTAPI method) you can skip this part.

1. Navigate to admin > SIP > SIP access
2. Change the radio button to allow and save the configuration

**Enable audio broadcast support**

1. Navigate to admin > broadcast parameters
2. Make any changes you want; however, the defaults usually work without issues
3. You can leave the option to send commands to the phone using JTAPI as default (unchecked); however, [you may want to read this first](https://supportforums.cisco.com/document/12710611/integrating-basic-cisco-paging-basic-informacast-cucm#Should_I_use_HTTP_or_JTAPI_to_send_messages_to_the_phone). With that being said, it is recommended to the use JTAPI to send commands to the phones as JTAPI works with more locales and JTAPI better monitors the status of the line.
   1. NOTE: To move from HTTP to JTAPI for communicating with the phones you simply check the box then add the "Standard CTI allow control for all Devices" user group to the Informacast application user.
4. Save the configuration if you made any changes

Everything above this line is the bare minimum to integrate the Cisco Paging Server. Everything below this point is recommended but not always necessary.

**Update JTAPI In Informacast If Using JTAPI Integration**

These steps were taken directly from the Informacast Installation & User Guide.

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

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

Step 1. Log into Webmin (https://<YourInformaCast'sIP>:10000/).

Step 2. Go to System | Bootup and Shutdown. The Bootup and Shutdown page appears.

Step 3. Scroll down the list of actions until you come to Singlewire’s.

Step 4. Select the singlewireInformaCast checkbox and (if applicable) the singlewirePTT checkbox.

Step 5. Scroll down the page and click the Stop button. It will take a minute or so for your application(s) to stop.

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

Step 6. Use an SSH client (Singlewire recommends PuTTY) to access InformaCast’s command line interface.

Step 7. Open PuTTY. The PuTTY Configuration window appears.

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

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

Step 10. Click the SSH radio button.

Step 11. Click the Open button. The command-line interface for InformaCast appears.

Step 12. Enter admin at the prompt and press the Enter key.

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

Step 14. Enter updateJTAPI <CUCM IP Address>, where <CUCM IP Address> is replaced by the IP address of your CUCM, at the prompt and press the Enter key. If an error condition occurs, please contact Singlewire Support.

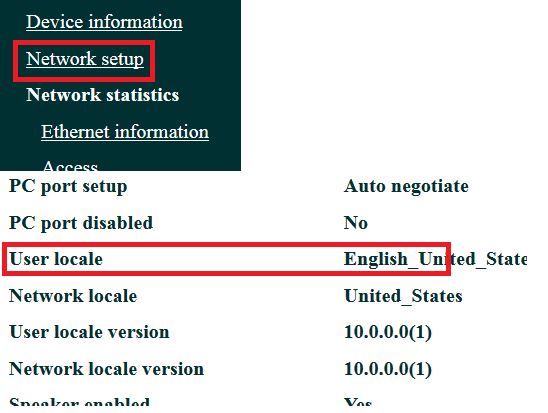
Step 15. Enter exit at the prompt and press the Enter key.

Step 16. Go back to the Bootup and Shutdown page.

Step 17. Select your checkbox(es) again and click the Start button. It will take a minute or so for your application(s) to start.

Should I use HTTP or JTAPI to send messages to the phone

You can use either regardless of whether or not you do SIP integration; however, you may want to use JTAPI if you are paging to phones using a locale that is non-English (this can be found on the phone web-page see image below).  What differs based on integration method is busy detection.



InformaCast uses different busy detection methods depending on how you send messages to the phones (HTTP or JTAPI).  
  
HTTP:  
\* Busy detection only works with phone locales running English loads  
  
CTI:  
\* Works with non-English phone locales  
  
Busy detection also works differently according to protocol as well as line type and line state.