



Appendix

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InformaCast Advanced Notification Support

Configure and Troubleshoot Informacast

In general, Cisco Wireless Phone 840 or 860 support multicast audio broadcasts, text notifications, and user feedback to the InformaCast server using the XSI APIs. InformaCast can be configured to use HTTP or Cisco Unified Communications Manager JTAPI interfaces to the Cisco Unified Communications Manager.

For more information about Configure and Troubleshoot Informacast, see [Configure and Troubleshoot Informacast](#)

Unsupported InformaCast Features

Cisco Wireless Phone 840 or 860 currently does not support Push to Talk and Quick Page services. Phones subscribed to these services will have no way to activate the service on the device. Cisco Wireless Phone 840 or 860 also does not support One Button Paging, where the QuickPage service is assigned to a Service URL button in the device's Phone Button Template. As the phone does not allow configuration of buttons in the Cisco Unified Communications Manager.

Partially Supported InformaCast Features

Call Aware

Call Aware is primarily used to detect when a 911 emergency call has been dialed, which then triggers an InformaCast broadcast. It can also be used to detect calls to numbers other than 911, monitor calls that have been detected, and record those calls. For example, you could use it to trigger an InformaCast broadcast whenever someone calls the Front Desk, and a supervisor could elect to monitor those calls for quality assurance or record them for review later. Cisco Wireless Phone 840 or 860 does not support monitoring and recording of calls.

Text and Audio Messages using Talk and Listen

InformaCast messages that contain both text and audio can be configured with the option to “Start a phone call with any phones in a recipient group and allow everyone to speak in real time (Talk and Listen)”. When

Cisco Wireless Phone 840 or 860 receives one of these messages, the “talk” and “exit” softkeys are not displayed, so the Cisco Wireless Phone 840 or 860 can only listen to other phones that are transmitting audio.

Notes on InformaCast Features

Panic Button

Cisco Wireless Phone 840 or 860 have a red button which by default is configured to be the Emergency button on the device. This function can also be mapped to other device buttons using the Buttons application. Using the Emergency app, you can configure the phone to trigger an alarm or make an emergency call through the CiscoPhone app when the user does either a long press, 2 short presses, or 2 short or one long press of the configured Emergency button. By default, no actions are taken.

InformaCast’s panic button service can be used with or without the configuration of the Emergency app. In the step where the Cisco IP Phone Service is configured on the Cisco Unified Communications Manager ([Create an InformaCast XML Service \(singlewire.com\)](#)), the Cisco IP Phone Service created must be named **InformaCast** (this is not case-sensitive), otherwise the device will not recognize it as a service configured for the Panic button feature, and there will be no way for the user to activate it.

If the Emergency App is enabled, it continues to do what it currently does when the panic button is pressed. If both InformaCast and the Emergency App are being used, the Emergency app should be configured to trigger the alarm after one long press of the button, because if 2 presses are configured, the InformaCast service will be triggered twice. The Red circular on-screen panic button press in the Emergency app will not trigger the InformaCast panic button service.

Other Notes

If the phone is not in an active call, the Cisco Wireless Phone 840 or 860 displays a notification to the user when it receives a broadcast message from InformaCast.

The user can choose to view or ignore the message and stop the multicast audio stream by touching the corresponding button on the notification. If a broadcast contains audio only, this behavior differs from the 8821, which has no way of disabling the audio stream. If the phone is in a call, the multicast audio stream will not be played unless the user elects to play it by clicking on the button in the notification, which will place the existing call on hold.

If the phone is locked, the broadcast message is automatically displayed, and audio is played (if not in a call) without any user interaction. The user still has the ability to stop the audio through the stop button on the displayed message. If the user is in a call while the phone is locked, then ANSWER button in the notification must be clicked to hear the broadcast.

Phone vibration settings set on the InformaCast Broadcast Parameters page are ignored by Cisco Wireless Phone 840 or 860.

Cisco Wireless Phone 840 or 860 behaves as shown in the following table when multiple broadcasts are sent by InformaCast, depending on the configuration of the Enable Message Blending check box on the InformaCast Broadcast Parameters page:

Priority and Arrival Order	Blending Enabled	Blending Disabled
Lower priority broadcast (A) followed by higher priority broadcast (B).	Switches from playing broadcast A to playing broadcast B; once B is over, switches back to playing the rest of A.	Switches from playing broadcast A to playing broadcast B; once B is over, switches back to playing the rest of A.

Priority and Arrival Order	Blending Enabled	Blending Disabled
Broadcast (A) followed by broadcast (B) with the same priority.	Plays A in full, ignores broadcast B.	Plays broadcast A in full, then switches to playing the rest of B.
Higher priority broadcast (A) followed by lower priority broadcast (B).	Plays broadcast A in full, then switches to playing the rest of broadcast B.	Plays broadcast A in full, then switches to playing the rest of broadcast B.

CTI-Controlled Support

Need

InformaCast can use either HTTP or Cisco Unified Communications Manager JTAPI.

Using Cisco Unified Communications Manager JTAPI requires Cisco Unified Communications Manager to say the device supports computer telephony integration (CTI).

The one key feature that is used by InformaCast is XSI object pass thru – see page 276 of the Cisco Unified Communications Manager JTAPI developers guide:

XSI Object Pass Through Applications can pass XML objects through Cisco Unified Communications Manager JTAPI and CTI interfaces to the phone. The XML object can contain display updates, softkey update/enable/disable, and other types of updates on the phone that are available through Cisco IP Phone Services features. This allows applications to access Cisco IP Phone Service capabilities through Cisco Unified Communications Manager JTAPI and CTI interfaces without maintaining independent connections to the phones.

Authentication and Mechanism Sending an HTTP POST request to the phone web server, which requires the phone IP address, performs an object push. The web server parses the request, authorizes the request through the HTTP that is returned to the Cisco Unified Communications Manager, runs the request, and returns an XML response that indicates the success or failure of the request to the application. With XSI, the Cisco IP Phone Services object gets sent directly to the phone by the Skinny Client Control Protocol (SCCP). The phone does not authenticate the request, because the Cisco Unified Communications Manager JTAPI client is trusted and does not require the phone IP address. For more information on actual XML contents, see the Cisco IP Phone Services Application Development Notes.

Discussion

Cisco Wireless Phone 840 or 860 offers limited CTI support and customers can enable and test functionality with Third-party Software that exercises the CTI, but their results maybe limited based on what exact functionality is exercised by the Third-party Software.

SIP Signaling and CTI

The line messaging guide details the kinds of remotec REFERS we can get from CTI.

The following requests are supported from Cisco Unified Communications Manager to the phone. Details are in the CMCM 8.0 Line Messaging guide (see table on page 78) and CUCM 12 version of the guide on page 125.

Remote cc request	Purpose	Currently supported in CiscoPhone app
initiatecallreq	Triggers endpoint to send an INVITE to Cisco Unified CM. An offhook NOTIFY may precede this INVITE	No
holdretrievereq	Used to resume a held dialog.	No
privacyreq	Used to send shared line privacy setting to the endpoint	Yes
statuslineupdatereq	Used to display a status message on a phone UI	Yes (although we do not display the message passed in this by the CUCM – we use our own logic). Looks like this was put in when we did CUCM conferencing and is used for call pickup Our code is feature state specific and this could come with no context.
playtonereq	Used to play a tone at the device.	Yes – for call pickup. Initially we also would get this with CUCM conferencing, but we changed the implementation method. Our code is feature state specific and this could come with no context.
cfwdallupdate	Used to send call forward all settings to the endpoint for a particular line	Yes, this is how devices learn whether CFA is active when they first register.
datapassthroughreq	Cisco Unified CM uses Data PassThrough Request to pass subelements to features and CTI applications	Yes (new in 1.10 for supporting XSI over JTAPI)
holdreversionreq	The Cisco Unified CM hold reversion feature uses this request to trigger the endpoint to invoke hold reversion on the specified call	No
monitorcallreq	CTI applications use this to request that a phone begin monitoring a call on another phone.	No – but will if we implement silent monitoring
dndrequest	CTI applications use this to request that a phone simulate the user pressing the DND softkey. This toggles the phone DND state from enabled to disabled or from disabled to enabled	No

Remote cc request	Purpose	Currently supported in CiscoPhone app
dnupdate	Cisco Unified CM uses this request to convey DND status and DND option settings when either setting is modified by using the Cisco Unified CM web administrative interface	No
Linekeyupdate	CTI uses this to request the phone to update the Intercom speedial setting.	No
talkbackreq	CTI applications use this request to initiate Intercom talkback for establishing two-way media.	No
dialdtmfreq	Requests phone to dial the DTMF digit	No. This is only in the 12.5 document

Even if we do not support a particular request, we should still send an appropriate SIP response and a terminating NOTIFY, if necessary.

Part of supporting CTI is also that the phone informs CUCM of various events via remotecc REFER messages. See the table on page 120 of the 12.5 version of the document:

Remotecc request	Feature	Description	Currently supported in CiscoPhone app
softkeyeventmsg	conference	Create a conference	Yes, for CUCM conferencing
softkeyeventmsg	park	Park a call	Yes – note we use parkmonitor, not park. Parkmonitor is not listed in the document.
softkeyeventmsg	conflist	List participants in a conference	No. We use the NOTIFY sent from CUCM. We don't support the phone pressing the softkey to get it.
softkeyeventmsg	rmlastconf	Remove last participant added to a conference	No
softkeyeventmsg	idivert	Activate immediate diversion feature	Yes

Remotecc request	Feature	Description	Currently supported in CiscoPhone app
softkeyeventmsg	callback	The CallBack feature allows you to receive notification when a busy extension is available to receive calls. You can activate Call Back for a destination phone that is within the same Unified Communications Manager cluster as your phone or on a remote Private Integrated Network Exchange (PINX) over QSIG trunks or QSIG-enabled intercluster trunks.	No
Softkeyeventmsg	Qrt	Quality Reporting Tool	No
Softkeyeventmsg	Select	Allows a call to be locked such that remote devices can't remotely resume a held call.	Yes
Softkeyeventmsg	Unselect	Opposite of Select	Yes
Softkeyeventmsg	Privacy	Toggle privacy status for all lines on the phone	Yes
Linekeyeventmsg		This is how the phone sends line key presses to the CUCM for features that don't have an associated standard SIP primitive in this release. Document mentions privacy, but we support that through softkey press.	No
Datapassthreq		Send XSI XML key presses to CUCM features and CTI applications	No

For more information, see

[jtapi - Cisco Developer](#)

[Cisco Unified JTAPI Developers Guide for Cisco Unified Communications Manager, Release 14 and SUs \(upload-large-file.s3.us-east-2.amazonaws.com\)](#)