Grandstream Networks, Inc.

GXP2130/GXP2140/GXP2160

Multicast Paging User Guide

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INTRODUCTION

Multicast paging is an approach to let different SIP users to listen to a page from a common multicast IP address. In multicast page call, one way audio will setup from sender to listeners, but the listeners cannot talk to each other. The sender and listeners must be located within the same LAN.

GXP2130/GXP2140/GXP2160 supports multicast page sending and listening on firmware version 1.0.4.10 or greater. Users could configure line keys or multi-purpose keys to send multicast paging. Also GXP2130/GXP2140/GXP2160 is capable to listen to at most 10 different multicast addresses by following defined preference.

This document serves as an end user guide on how to configure multicast page on the GXP2130/GXP2140/GXP2160. To learn more about GXP2130/GXP2140/GXP2160's basic and advanced features, please visit http://www.grandstream.com/support to download the latest "GXP2130/GXP2140/GXP2160 User Guide" and "GXP2130/GXP2140/GXP2160 Administration Guide".

SENDING MULTICAST PAGING

CONFIGURATION

Sender multicast page configurations are under GXP2130/GXP2140/GXP2160's Web UI **Settings**->**Programmable Keys**->**Line Keys** OR **Multi-Purpose Keys**.

1. Set the key **Mode** to **Multicast Paging** in dropdown list.
2. Enter the multicast paging description in **Description** field.
3. Enter multicast paging address and port in **Value** field.
   The range of multicast page address is 224.0.0.0 to 239.255.255.255 with a port not in use by phone.

The **Figure 1** and **Figure 2** show the example of setting Line Keys/MPK to multicast page sending key.

Programmable Keys

Line Keys	Mode	Account	Description	Value
LINE 1	LINE	Account 1	David	1003
LINE 2	LINE	Account 2	Raymond	1004
LINE 3	Multicast Paging	Account 3	Sales	237.11.10.11:6767
LINE 4	Multicast Paging	Account 4	Support	237.11.10.12:6768
LINE 5	Multicast Paging	Account 5	Test	237.11.10.13:6769
LINE 6	Multicast Paging	Account 6	Warehouse	237.11.10.14:6770

Figure 1 Sending Multicast Page Configuration by using Line Keys

Multi-Purpose Keys	Mode	Account	Description	Value
MPK 1	Multicast Paging	Account 3	Sales	237.11.10.11:6767
MPK 2	Multicast Paging	Account 2	Support	237.11.10.12:6768
MPK 3	Multicast Paging	Account 1	Test	237.11.10.13:6769
MPK 4	Multicast Paging	Account 1	Warehouse	237.11.10.14:6770
MPK 5	Multicast Paging	Account 1	Manager	237.11.10.15:6771

Figure 2 Sending Multicast Page Configuration by using MPK

Note: GXP2140 supports MPK when extended with GXP2200EXT extension boards.

GXP2130/GXP2140/GXP2160 supports 5 codecs for Multicast Paging. User can specify the multicast page sending codec under Web UI Settings ->**Multicast Paging->Multicast Paging Codec**. The supported codecs are PCMU, G.729A/B, PCMA, G.726-32 and G.722.

SEND MULTICAST PAGING CALL

After configuring the sender multicast page, users could make a multicast page to remote parties.

1. Press the configured MPK or Line Key to send a multicast page.
    The LED light of the key will turn green and the phone screen will show the multicast address with defined label. See **Figure 3** Multicast Page screen.

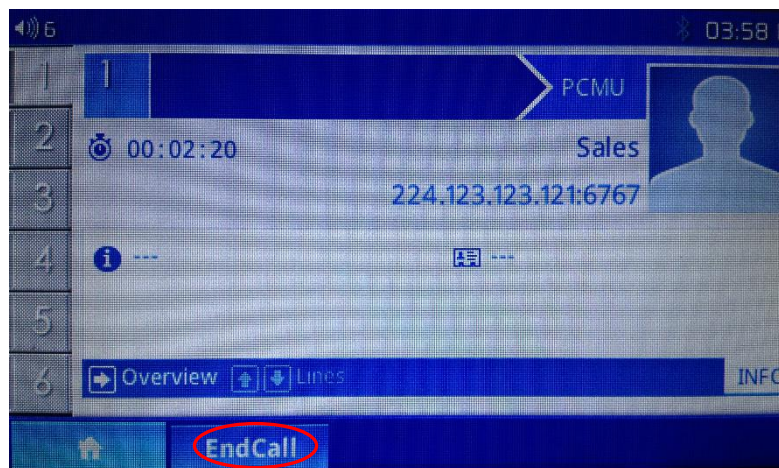2. Press the "EndCall" soft key to end the multicast paging.

Figure 3 The Multicast Page Screen

RECEIVING MULTICAST PAGING

CONFIGURATION

To receive multicast page, GXP2130/GXP2140/GXP2160 must be well configured to listen to the right address and port. The configurations are under **Settings**->**Multicast Paging**. There are 10 listening address supported with priority levels 1 to 10. Optionally, each of these addresses can also have a label that will display on LCD when the page is received.

Note: The multicast page configuration requires rebooting to take effect.

Figure 4 Multicast Paging

Table 1 Receiving Multicast Page Configuration

Settings -> Multicast Paging	
Paging Barge	Default setting is "Disabled". Assigns any number from 1 to 10. When enabled, during active call if incoming multicast page is higher than this value, the call will be held and multicast page will be played.
Paging Priority Active	Default setting is "Disabled". If enabled, during a multicast page if another multicast is received with higher priority that one will be played instead.
Multicast Paging Codec	The codec for Multicast page sending. The default setting is PCMU. G.729A/B, PCMA, G.726-32 and G.722 (wide band) are supported as well.

Multicast Listening	Support 10 of listening multicast address with priority levels 1-10 with 1 being the highest priority. The lower the level, the higher the priority.

PAGING BARGE

This option is to control the priorities between multicast page and common SIP call. Available options are **Disabled** and numbers 1 to 10. If the option is set to disabled then all incoming pages are ignored while in call.

When the option is set to number, **Paging Barge** is enabled. If the number of Paging Barge is higher than an incoming page's priority value (determined by the position in the list 1-10) then the incoming page is not played. Similarly, if the Paging Barge value is lower than an incoming page's priority value, and then the active SIP call will be held.

As an example, in **Figure 3**, the Paging Barge is configured as 3. During an active call if incoming multicast page priority is greater or equal to 3, the current active call will be held, and page will be played. However, if the incoming multicast page priority is 1 or 2, the current active call will be kept.

PAGING PRIORITY ACTIVE

This option is to control the priorities among different multicast pages. If the option is disabled, the phone ignores any incoming pages when a page is already being played. Otherwise, incoming pages with a higher priority will be played instead of the current page. For example, if the phone is playing a page whose priority is 5 and there is an incoming page with priority 3, the priority 5 page will stop and the priority 3 page will play instead.

RECEIVE MULTICAST PAGING CALL

After multicast page listening well configured, please reboot the phone to let the settings take effect. When there is a page on the listening address and port, the phone will play the incoming audio automatically. User can press "EndCall" softkey to end the page.