

Grandstream Networks, Inc.

GRP26xx - Multicast Paging Guide



Multicast paging is an approach to let different SIP users 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.

Users could configure line keys or multi-purpose keys to send multicast paging. Also, GRP26XX Carrier-Grade IP Phones are 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 GRP26XX Carrier-Grade IP Phones. To learn more about GRP26XX's basic and advanced features, please visit <https://www.grandstream.com/support> to download the latest User and Administration Guide for GRP26XX phones.

Note

GRP26xx series include, GRP261x, GRP260x series as well as GRP2624/2634/2636/2650/2670.

Sending Multicast Paging

Configuration

Using Virtual Multi-Purpose Keys

For all GRP26xx (excluding GRP2601/P/W), sender multicast page configurations are under Web UI → **Settings** → **Programmable Keys** → **Virtual Multi-Purpose Keys**.

1. Set the key **Mode** to **Multicast Paging** in drop-down 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 below figure shows the example of setting Virtual Multi-purpose Keys to multicast page sending key.

| Order | Mode | Account | Value | Label | Locked |
|-------|------------------|-----------|------------------|-----------|--------------------------|
| 1 | Line | Account 1 | 1005 | | <input type="checkbox"/> |
| 2 | Line | Account 2 | | | <input type="checkbox"/> |
| 3 | Line | Account 3 | | | <input type="checkbox"/> |
| 4 | Multicast Paging | Account 1 | * 237.11.10.11:6 | Sales | <input type="checkbox"/> |
| 5 | Multicast Paging | Account 1 | * 237.11.10.12:6 | Support | <input type="checkbox"/> |
| 6 | Multicast Paging | Account 1 | * 237.11.10.13:6 | Warehouse | <input type="checkbox"/> |

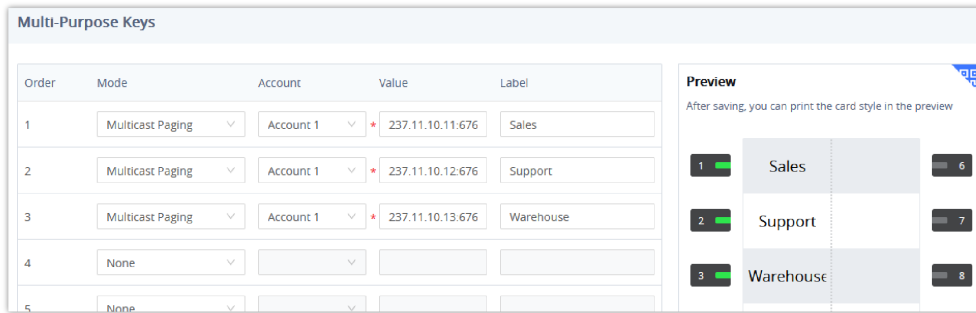
Add Save Reset

Sending Multicast Page Configuration by using VPKs GRP261x and GRP2624/2634/2636/2650/2670

Using Multi-Purpose Keys

For GRP26xx models that support MPKs (GRP2604/P, GRP2614, GRP2616, GRP2634, GRP2636), the configuration for the multicast page sender can be found in **Programmable Keys → Multi-Purpose Keys**.

1. Select **Multicast Paging** from the **Mode** drop-down menu.
2. Under **Value**, enter the multicast paging address and click on **Save**.

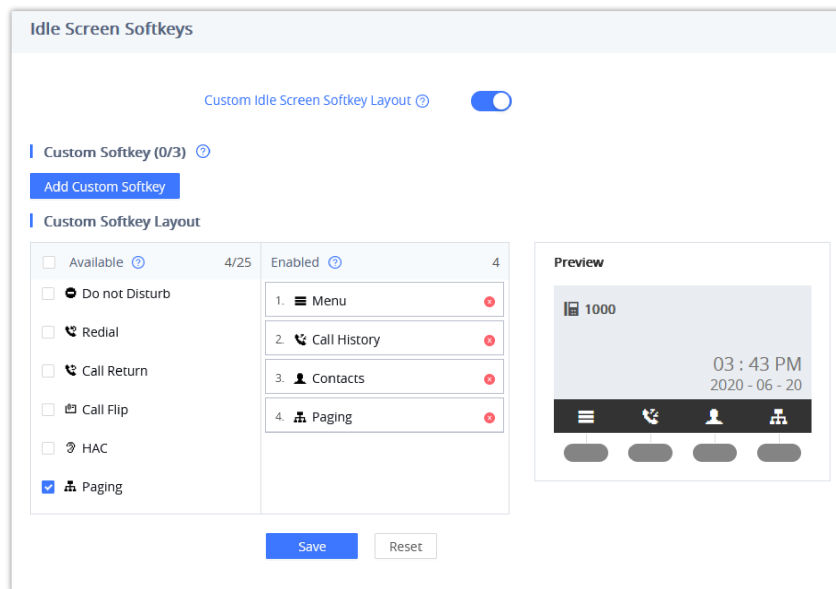


Sending Multicast Page Configuration by using MPKs on GRP2604P

Using Idle Screen Softkeys

For GRP260x, sender multicast page configurations are under Web UI → **Programmable Keys → Idle Screen Softkeys**.

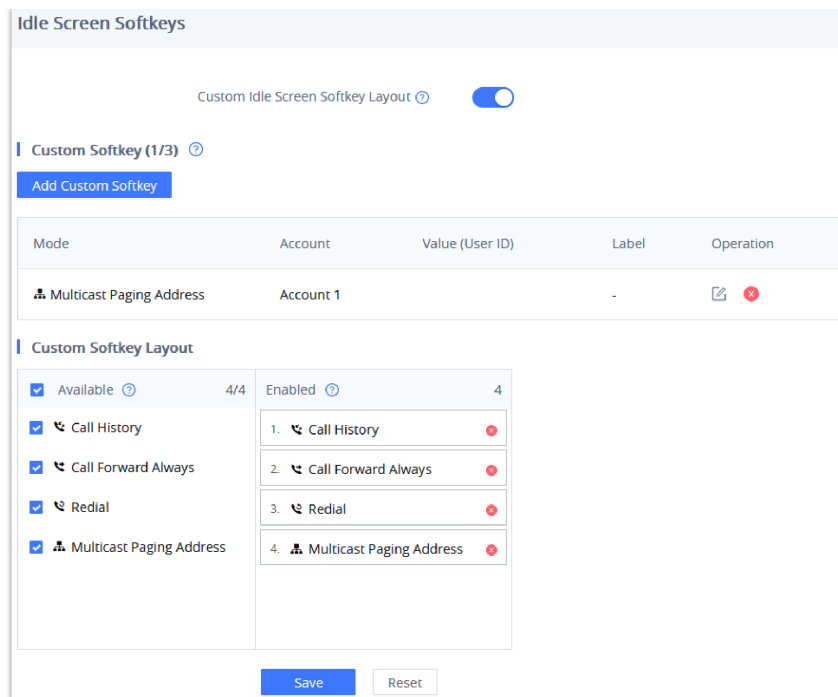
1. Enable the option “Custom Idle Screen Softkey Layout”.
2. Under Custom Softkey Layout select the option “paging” from the available list.
3. Then save the configuration.



Sending Multicast Page Configuration by using Idle Screen Softkeys on GRP260x

For GRP261x/GRP2624/GRP263x/GRP2650/GRP2670, in order to configure Multicast paging sending using Idle Screen Softkeys, go to Web UI → **Programmable Keys → Idle Screen Softkeys**.

1. Enable the option “Custom Idle Screen Softkey Layout”.
2. Click the **Add Custom Softkey** button and choose **Multicast Paging Address** from the **Key Mode** drop-down list.
3. Under **Custom Softkey Layout**, select the the option **Multicast Paging Address** from the available custom Softkeys.



Sending Multicast Page Configuration by using Idle Screen Softkeys on GRP261x

Upon pressing the paging key on the idle screen, users need to select the configured muticast IP under **Phone Settings** → **Multicast Paging** to where the muticast paging will be sent.

Note :

GRP26xx supports 6 codecs for Multicast Paging. Users can specify the multicast page sending codec under **Web UI** → **Settings** → **Multicast Paging** → **Multicast Paging Codec**. The supported codecs are PCMU, G.729A/B, G.723.1, PCMA, G.726-32 and G.722.

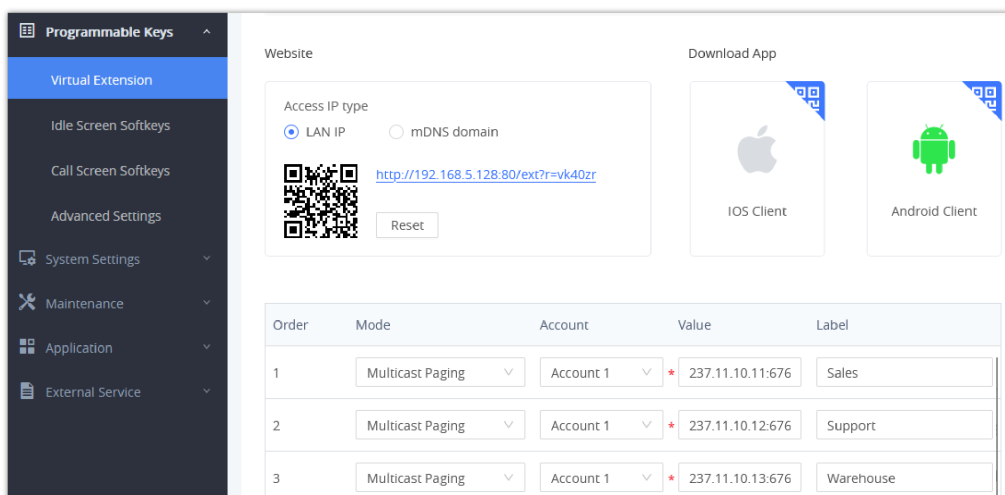
Using Virtual Extension

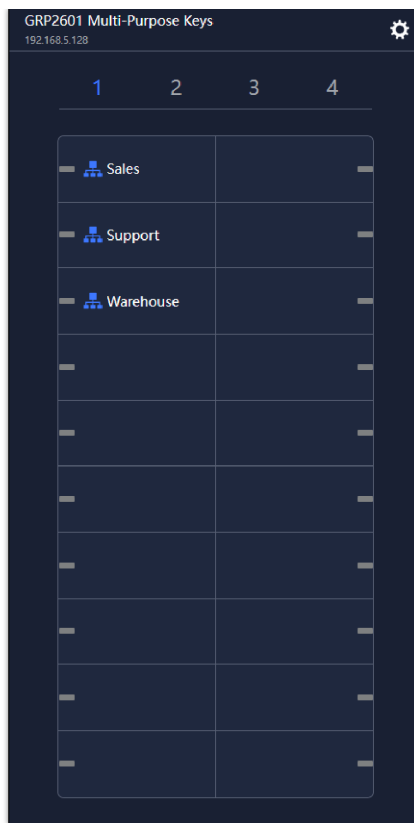
For GRP260x, starting from firmware 1.0.5.19, users can configure a Virtual Extension for different modes, one of them being multicast paging. This can be done in the Web UI → **Programmable Keys** → **Virtual Extension**.

1. Choose Multicast Paging from the Mode drop-down list.
2. Under Value, enter the multicast IP Address.
3. To access the virtual extension Web page, scan the QR code or click the link provided. The virtual extension can also be used as an app (iOS or Android).

Important :

“HTTP” is required for the Grandstream Virtual Extension App. Please make sure to enable the HTTP support in Web UI → **System Settings** → **Security Settings** → **Web Access Mode**.





Sending Multicast Page Configuration by using Virtual Extension on GRP260x

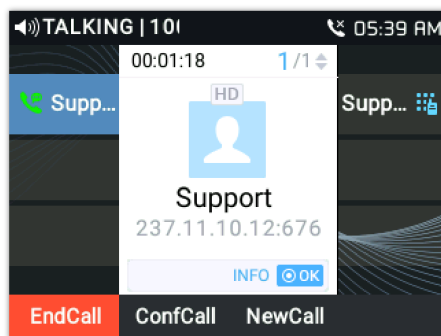
Send Multicast Paging Call

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

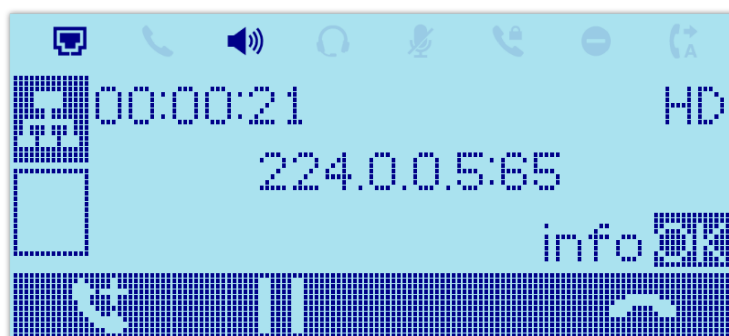
1. Press the configured MPK, VPK or Softkey to send a multicast page.

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.



The Multicast Page Screen for GRP261x and GRP2624/2634/2636/2650/2670



The Multicast Page Screen for GRP260x

Receiving Multicast Paging

Configuration

To receive multicast page, the GRP26xx must be well configured to listen to the right address and port. The configuration is set up under **Web UI → Phone 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.

Multicast Paging

Multicast Paging Function

Allowed in DND Mode

Paging Barge Disabled

Paging Priority Active

Multicast Channel Number

Multicast Paging Codec G722

Multicast Sender ID

Multicast Call Timeout(s)

| Priority | Listening Address | Label |
|----------|-------------------|-----------|
| 1 | 237.11.10.11:6767 | Sales |
| 2 | 237.11.10.12:6768 | Support |
| 3 | 237.11.10.13:6769 | Warehouse |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

Multicast Paging Settings on GRP26xx

| Phone Settings → Multicast Paging | |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Multicast Paging Function | Enable or disable multicast paging. Default setting is "Enabled". |
| Allowed In DND Mode | Allow Multicast paging when DND Mode is enabled. |
| Paging Barge | 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. Default setting is "Disabled". |

| | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paging Priority Active | If enabled, during a multicast page if another multicast is received with higher priority that one will be played instead. Default setting is "Enabled". |
| Multicast Channel Number | Multicast Channel Number range is 0-50. 0 for normal RTP packets, 1-50 for Polycom multicast format packets. |
| Multicast Paging Codec | The codec for Multicast page sending. The default setting is G.722. G.723.1, G.729A/B, PCMA, PCMU, G.726-32 and G.722 (wide band) are supported as well. |
| Multicast Sender ID | Outgoing caller ID that displays to your page group recipients (for multicast channel 1-50). |
| Multicast IGMP Interval | Configure interval for Multicast IGMP query. (Available only in GRP261x, GRP2624, GRP263x, GRP2650, GRP2670). |
| Multicast Call Timeout(s) | Set multicast based call timeout. When the sender's multicast call exceeds the set time, it will automatically hang up and set to 0 without timeout. (Available only in GRP260x). |
| Multicast Tone | If enabled, there will be a prompt sound at the beginning and end of the receiver's multicast intercom. This option is enabled by default. (Available only in GRP260x). |
| 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. |

Multicast Paging Configuration

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, if 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.