

Asterisk™ Configuration & Busy Lamp Field (BLF) for the GXP2000

This configuration enables a user to use the *speed dial* key as an **Asterisk™ BLF** key so that:

- When JaneDoe1 with extension 502 receives a call, the key 2 LED will be flashing in red, and the user can pick up the call for JaneDoe1 by simply pressing key 2. The GXP-2000 will send a SIP INVITE with “**502” to Asterisk™.
- When JaneDoe1 picks up the call, the key 2 LED will become solid red
- When JaneDoe1 is making a call, the key 2 LED will become solid red as well.
- If the key 2 LED is not red, pressing key 2 will initiate a call to JaneDoe1 at extension 502

To enable the Asterisk™ BLF, you need to update both the GXP2000 configuration and the Asterisk™ configuration.

GXP-2000 Configuration

In the Basic Settings web configuration page, configure the **Multi Purpose Keys** to be used. Set the Key Mode to **Busy Lamp Field (BLF)**, and specify Account to the SIP account that will be using the BLF key. Lastly, use the Name field to label the key and set User ID to the User ID of the user to be monitored:

Multi Purpose Key 1:	Key Mode: <input type="text" value="Busy Lamp Field (BLF)"/>	Account: <input type="text" value="Account 1"/>
	Name: <input type="text" value="JohnDoe1"/>	UserID: <input type="text" value="501"/>
Multi Purpose Key 2:	Key Mode: <input type="text" value="Busy Lamp Field (BLF)"/>	Account: <input type="text" value="Account 1"/>
	Name: <input type="text" value="JaneDoe1"/>	UserID: <input type="text" value="502"/>
Multi Purpose Key 3:	Key Mode: <input type="text" value="Busy Lamp Field (BLF)"/>	Account: <input type="text" value="Account 1"/>
	Name: <input type="text" value="JohnDoe2"/>	UserID: <input type="text" value="503"/>
Multi Purpose Key 4:	Key Mode: <input type="text" value="Busy Lamp Field (BLF)"/>	Account: <input type="text" value="Account 1"/>
	Name: <input type="text" value="JaneDoe2"/>	UserID: <input type="text" value="504"/>
Multi Purpose Key 5:	Key Mode: <input type="text" value="Busy Lamp Field (BLF)"/>	Account: <input type="text" value="Account 1"/>
	Name: <input type="text" value="JohnDoe3"/>	UserID: <input type="text" value="505"/>
Multi Purpose Key 6:	Key Mode: <input type="text" value="Busy Lamp Field (BLF)"/>	Account: <input type="text" value="Account 1"/>
	Name: <input type="text" value="JaneDoe3"/>	UserID: <input type="text" value="506"/>
Multi Purpose Key 7:	Key Mode: <input type="text" value="Busy Lamp Field (BLF)"/>	Account: <input type="text" value="Account 1"/>
	Name: <input type="text" value="JohnDoe4"/>	UserID: <input type="text" value="507"/>

Asterisk™ Configuration:

1. To monitor the status of other users, the GXP-2000 subscribes to hints from Asterisk. The following configuration in the **extensions.conf** file creates two groups of extensions which are hinted:

```
[BLF_Group_1]
exten => 501, hint, SIP/501
exten => 502, hint, SIP/502
exten => 503, hint, SIP/503
```

```
[BLF_Group_2]
exten => 504, hint, SIP/504
exten => 505, hint, SIP/505
exten => 506, hint, SIP/506
exten => 507, hint, SIP/507
```

2. To monitor and pickup other users with BLF keys, a user's SIP account must first be set to subscribe to a BLF group. The configuration below demonstrates two SIP accounts configured as such in the **sip.conf** file:

```
[501]
type=friend
username=501
secret=mypassword
context=internal
host=dynamic
nat=yes
subscribecontext=BLF_Group_1
```

```
[504]
type=friend
username=504
secret=mypassword
context=internal
host=dynamic
nat=yes
subscribecontext=BLF_Group_2
```

Using Asterisk version 1.4

Under each of the above users, a call-limit needs to be placed. Use something overly-generous, such as:

```
call-limit=20
```

Under the *[general]* settings in *sip.conf*, the following line needs to be added:

```
limitonpeers=yes
```



3. When a call is ringing to a user, all BLF key LEDs set to monitor that user will become flashing red. If an attempt is made to pick up the call by pressing the BLF key, the GXP-2000 will send the UserID of the ringing user, prefixed by "***". For example, if JaneDoe1 at UserID 502 shows flashing red, pressing the BLF key will trigger the GXP-2000 to dial "***502" to Asterisk.

Configure Asterisk to match any **5XX call and pick up the call ringing at 5XX by configuring the following in the *extensions.conf* file:

```
[BLF_group_pickup]
exten => _**5XX,1,Pickup(${EXTEN:2})
exten => _**5XX,2,Hangup
```

You can either add the two dial-plan lines above to the context that your SIP accounts are in (i.e. internal), or you may create it as a separate context, as shown above. If in a separate context, the context will need to be included in the context that your SIP accounts are in. For example, under context "internal", you can add the following line:

```
include => BLF_group_pickup
```

4. When configuration changes are complete, first reload the extensions and the chan_sip.so module in Asterisk, or simply restart the service. The commands vary depending on the version of Asterisk. Then update the changes on the GXP-2000 and reboot the phone. If the GXP-2000 is rebooted before the Asterisk modules are reloaded, it may take a short moment before the BLF LEDs begin to monitor on the GXP-2000.