Grandstream Networks, Inc.

UCM6100 Series IP PBX Appliance

Configure Event List BLF

Grandstream Networks, Inc.

www.grandstream.com

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OVERVIEW

The UCM6100 supports event list BLF starting from firmware 1.0.2.x. Event list BLF is similar to BLF but in event list the PBX collects the status information from the monitored extensions and sends it out to the subscribers in a single SIP NOTIFY message.

The UCM6100 event list feature supports the following:

- Add local extensions to the event list for the local users to monitor the extensions' status.
- Add remote extensions in SIP Peer/Register trunk from another UCM6100 to the event list so the local users can monitor the remote extensions.
- If two UCM6100s are synchronized with each other using LDAP sync feature, the remote extensions can be detected automatically for users to manually add them into the event list.

Event list BLF feature can be used in typical office environment such as front desk, boss-secretary scenario, customer support and etc. Users can monitor other extensions locally and remotely, as well as pickup the ringing extension from the BLF key.

CHANGE LOG

- Firmware 1.0.2.21. This is the initial version.

PREREQUISITE

- Please make sure the UCM6100 firmware version is 1.0.2.21 or higher.
- Remote extension monitoring via event list BLF works on the UCM6100 between Peer SIP trunks or Register SIP trunks (register to each other). Therefore, please properly configure SIP trunks on the two UCM6100s before using remote BLF feature.
- The SIP end point needs support event list BLF in order to use the UCM6100 event list feature to monitor local or remote extensions.

HOW IT WORKS

- **Monitor Local Extension**

  SIP end points (IP Phone) will send SIP SUBSCRIBE to the UCM6100. The UCM6100 will respond 200 OK and send SIP NOTIFY to the SIP end points with the monitored extensions' status.

- **Monitor Remote Extension**

When an event list is created on the UCM6100 with remote extensions added into the list, the UCM6100 will send out SIP SUBSCIRBE to the remote UCM6100. The remote UCM6100 will respond 200 OK and send SIP NOTIFY to the UCM6100 with the remote extensions' status.

After configuring event list BLF, the SIP end points (IP Phone) will send SIP SUBSCRIBE to the UCM6100. The UCM6100 will respond 200 OK and send SIP NOTIFY to the UCM6100 with all the monitored extensions' status.

- **SIP NOTIFY**

In the SIP NOTIFY sent from the UCM6100, there are four different dialog state in the message body. Upon receiving the NOTIFY, the SIP end point will light up the BLF key LED differently to indicate the monitored extension status.

Dialog <state>	BLF Key LED Status	Monitored Extension's Status
early	Blinking Red	Ringing
confirmed	Solid Red	Talking
terminated	Solid Green	Idle/Online
offline	Off	Offline

Early:

```
<?xml version="1.0" encoding="UTF-8"?>
<dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="27"
state="partial" entity="sip:7009@192.168.1.101">
   <dialog id="7009">
     <state>early</state>
   </dialog>
</dialog-info>
```

Confirmed:

```
<?xml version="1.0" encoding="UTF-8"?>
<dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="159"
state="partial" entity="sip:6000@192.168.1.101">
   <dialog id="6000">
      <state>confirmed</state>
   </dialog>
</dialog-info>
```

Terminated:

```
<?xml version="1.0" encoding="UTF-8"?>
<dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="159"
state="partial" entity="sip:6000@192.168.1.101">
   <dialog id="6000">
      <state>terminated</state>
   </dialog>
</dialog-info>
```

Offline:

```
<?xml version="1.0" encoding="UTF-8"?>
<dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="94"
state="partial" entity="sip:6000@192.168.1.101">
   <dialog id="6000">
      <state>offline</state>
   </dialog>
</dialog-info>
```

- **BLF Call Pickup**

When the monitored extension is ringing (dialog <state> is "early"), the user could press the blinking BLF key to pick up the call for the monitored extension.

To successfully pickup the call, the user will need configure the BLF pickup prefix on the SIP end point first. By default, the Grandstream IP phones are pre-configured with ** as the BLF pickup prefix.

When picking up the call by pressing the BLF key, the SIP end point will send SIP INVITE using **+extension number to the UCM6100. The UCM6100 will authenticate the INVITE and respond 200 OK to the SIP end point. It will also send a CANCEL message to the monitored extension. After this, the call will be established between the SIP end point and the caller.

CONFIGURE THE UCM6100

Please follow the steps below to configure event list on the UCM6100.

1. Go to UCM6100 web GUI->**PBX**->**Call Features**->**Event List**, click on "Create New Event List". You will see the dialog as *Figure 1: Create New Event List* shows.
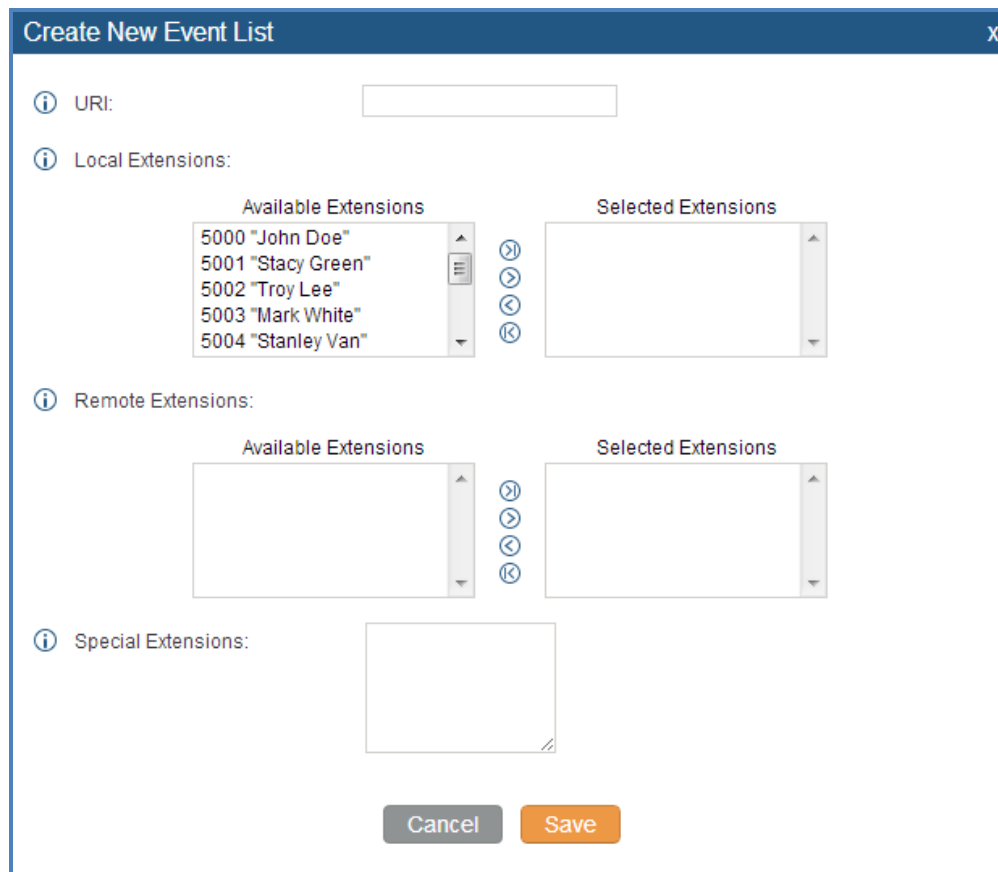

Figure 1: Create New Event List

2. Fill in the URI, which is the name of this event list. It cannot be the same as any extension number on this UCM6100.
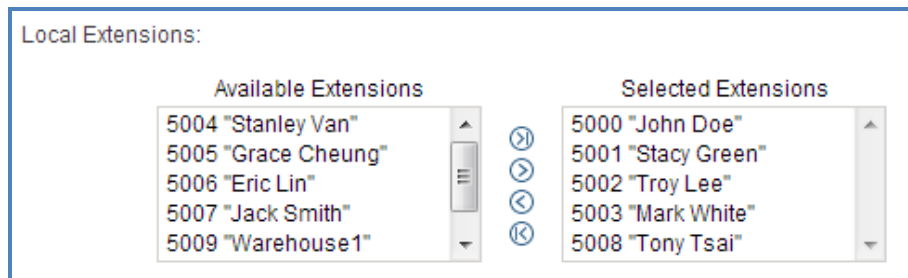
Example:

URI: UCM_remoteBLF

Figure 2: Configure URI Name

3. Select local extensions from the left list to the right. This is to add local extensions in the event list BLF to be monitored.

Example:

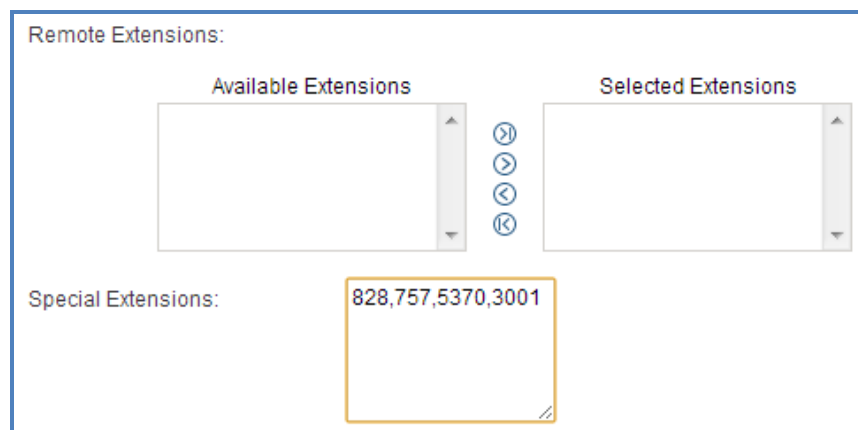**Figure 3: Add Local Extensions**

4. Select remote extensions from the left list (if any) to the right. The available remote extensions will be displayed only if the local UCM6100 and the remote UCM6100 are configured to synchronize via LDAP sync.

    If LDAP sync is not configured on the UCM6100, no extension will be listed available for selection. In this case, please fill in the remote extensions number in "Special Extensions" field manually.

    Format:
    extension1,extension2,extension3...

Example:

Figure 4: Add Remote Extensions

5. Click on "Save" button and "Apply" button for the changes to take effect.

6. The event list will be created with subscriber status information listed for each event list URI.

Example:

Figure 5: Event List Status

⚠ Note:

- To configure LDAP sync, please go to UCM6100 web GUI->**PBX**->**Basic/Call Routes**->**VoIP Trunk**. You will see "Sync LDAP Enable" option. Once enabled, please configure password information for the remote Peer/Register UCM6100 to connect to the local UCM6100. Additional information such as port number, LDAP outbound rule, LDAP Dialed Prefix will also be required. Both the local UCM6100 and remote UCM6100 need enable LDAP sync option with the same password for successful connection and synchronization.
- Currently LDAP sync feature only works between two UCM6100s via SIP Peer trunk.
- (Theoretically) Remote BLF monitoring will work when the remote PBX being monitored is non-UCM6100 PBX. However, it might not work the other way around depending on whether the non-UCM6100 PBX supports event list BLF or remote monitoring feature.

CONFIGURE SIP END POINT

The following example shows how to configure event list BLF on the GXP2200.

1. The GXP2200 is registered with local UCM6100 extension on Account 1.

2. Go to GXP2200 web GUI->**Advanced Settings**->**MPK General Settings**. Fill in the "Event list URI" with the URI configured in UCM6100. The default "BLF Call-pickup Prefix" is **, which is compatible with the UCM6100.
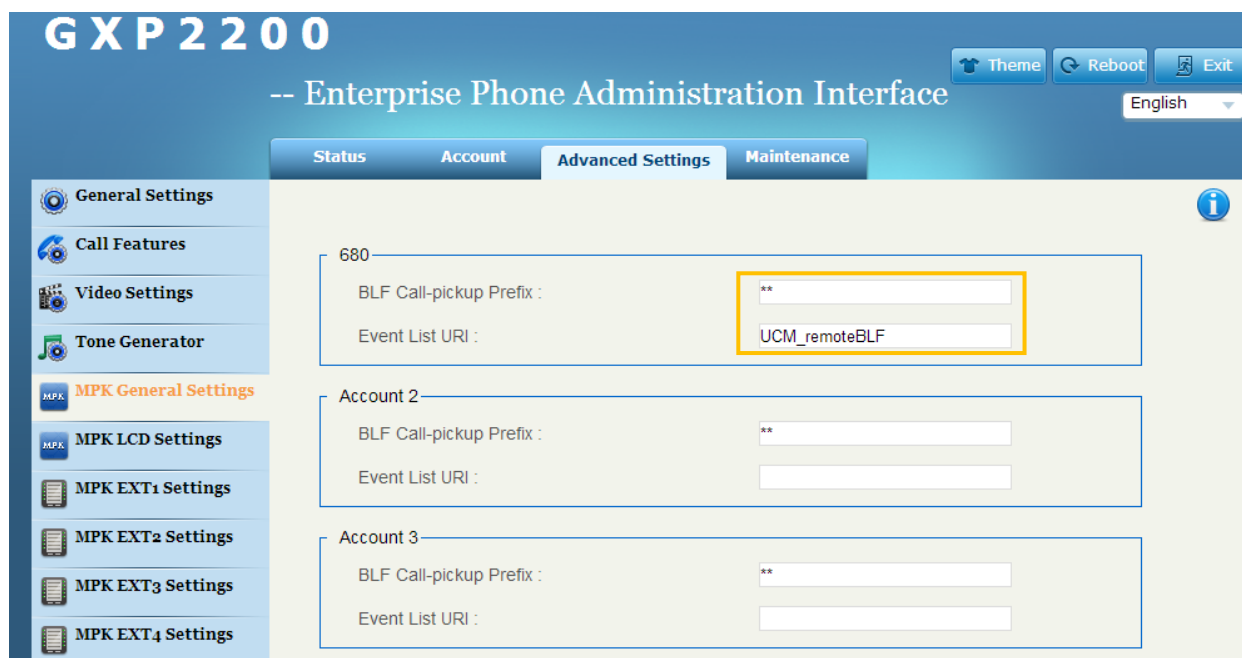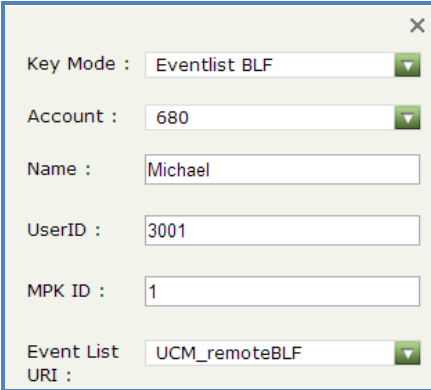

Figure 6: Configure GXP2200 Event List URI

3. If you are using the MPK app on the GXP2200, the event list extensions will be automatically populated without additional configuration for each MPK. You shall see the full list of monitored extensions light up in the MPK app when opening the app.

4. If you are using GXP2200EXT, go to GXP2200 web GUI->**Advanced Settings**->**MPK EXTx** Settings to configure the MPK key for each extension in the event list.

- **Key Mode**: Select "Eventlist BLF".
- **Account**: Select the account registered to the local UCM6100.
- **Name**: Specify the MPK label name displayed on the GXP2200EXT LCD.
- **UserID**: Fill in the extension number as added in the event list on the local UCM6100.
- **MPK ID**: You may leave it as it is. This specifies the MPK index.
- **Event List URI**: Select the event list URI, which should be the same as the URI configured on the local UCM6100.

Figure 7: Configure GXP2200 MPK For Event List BLF

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