

# Grandstream Networks, Inc.

## **SIP Presence**



# Introduction

The UCM6XXX is now offering the ability to subscribe to extensions state and to be informed about the current presence status of a coworker phone extension. The added value of SIP Presence is to keep the user advertised on the monitored extension's current general state as well (Available / Away / Chat / Busy / DND / Unavailable...).

Besides the mentioned presence statuses defined by the UCM6XXX, users can create a custom state that can take any format. The monitoring extension can subscribe to the presence status and be updated about any status change.

UCM6xxx includes UCM620x, UCM630x and UCM630xA series, and UCM6510.

The SIP Presence feature improves the users monitoring on the UCM6xxx and extends the MPKs utility on end points. A Busy Lamp is limited in its usability to phone line status, it can provide line connectivity and calling status, but something more informative is required.

This guide will be explicating the SIP Presence feature, and the user should have the UCM6xxx and endpoints supporting Presence Watcher features:



*SIP Presence Feature*

The prerequisites in our scenario are as follow:

- UCM6xxx with firmware version 1.0.14.23 or higher.
- A phone supporting presence watcher feature see [\[SUPPORTED DEVICES\]](#) section.

## Supported Presence Statuses

The below table explains briefly each presence status supported by the UCM6XXX :

<b>Available</b>	The contact is online and can participate in conversations/phone calls.
<b>Away</b>	The contact is currently away (ex: for lunch break).
<b>Chat</b>	The contact has limited conversation flexibility and can only be reached via chat.
<b>Do Not Disturb</b>	The Contact is on DND (Do Not Disturb) mode.
<b>Custom Presence Status</b>	Please enter the presence status for this mode on the web GUI.
<b>Unavailable</b>	The contact is unreachable for the moment, please try to contact later.

The default status among the listed ones above is '**Available**', changing it will generate a NOTIFY message that will be sent to all the subscribed presence watchers.

## Call Forward

All statuses supported by the UCM6XXX include Call Forward actions as shown in the figure :

The screenshot shows the 'Call Forward' configuration page for the 'Chat' presence status. At the top, there are tabs for 'Available', 'Away', 'Chat' (selected), 'Custom Presence Status', and 'Unavailable'. Below the tabs, there are two sections: 'Internal Calls' and 'External Calls'. Under 'Internal Calls', there are three rows: 'Call Forward Always' with 'Extension' set to '2005' and 'CFU Time Condition' set to 'Out of Office Time'; 'Call Forward No Answer' with 'Voicemail' set to '2004' and 'CFN Time Condition' set to 'Office Time'; and 'Call Forward Busy' with 'Custom Prompt' set to 'out-of-service' and 'CFB Time Condition' set to 'All Time'. There is an 'Upload' button next to the 'out-of-service' prompt. Under 'External Calls', there are three rows, each with a text input field and a 'CF' time condition dropdown.

Call Forward from Chat Presence Status

- **Call Forward Always** : Configures the Call Forward Always target number. All incoming calls will always be forwarded to the configured number. If not specified, this feature is disabled.
- **Call Forward No Answer** : Configures the target number to be forwarded to for Call Forward No Answer. Incoming calls that are not answered after ring timeout will be forwarded to the entered extension. If not specified, this feature is disabled.
- **Call Forward Busy** : Configures the target number to be forwarded to for Call Forward Busy. Incoming calls during busy time will be forwarded to the entered extension. If not specified, this feature is disabled.
- **CFU Time Condition** : Configures unconditional call forwarding based on time condition.

In addition to the Call Forward actions explained above, users can add specific extensions (pattern matching is also supported) to the Forward Whitelist. The extensions configured in the Forward Whitelist will be able to ring the destination directly.

The screenshot shows the 'FWD Whitelist' configuration interface. It features a list of two entries: '2005' and '2001', each with a red minus sign to its right. At the bottom right, there is a blue plus sign and the text 'Add FWD Whitelist'.

Call Forward Whitelist

## Do Not Disturb

When Do Not Disturb Mode is activated, all incoming calls are dropped and call forward settings will be ignored.

The screenshot shows the 'Do Not Disturb' configuration interface. At the top left, there is a 'Do Not Disturb' checkbox that is checked. To its right, there is a 'DND Time Condition' dropdown menu set to 'All Time'. Below this, there is a 'DND Whitelist' section with an empty text input field.

Do Not Disturb

- **DND Whitelist** : If DND is enabled, calls from the whitelisted numbers will not be rejected.
- **DND Time Condition** : The DND mode will take effect while this time condition is satisfied.

## Custom Presence Status

Users can also set a new custom state under the **“Custom Presence Status”** tab, the following figure shows a new custom presence status named **“InMeeting”**:

Presence Status:  \* Custom Presence Status:

Available   Away   Chat   **Custom Presence Status**   Unavailable

Call Forward:    CFU Time Condition:

Unconditional:   Call Forward No:    CFN Time Condition:

Answer:   Call Forward Busy:    CFB Time Condition:

Custom Presence Status

## Setting your Presence Status

### Setting Presence Status via Admin Web Interface

The SIP Presence feature on UCM6xxx includes six available statuses, users can access to the UCM **Web GUI**→**Extension/Trunk**→**Extensions**→**Features** and list the different statuses:

Basic Settings   Media   **Features**   Specific Time   Follow Me

Call Transfer

Presence Status:  ^

**Available**   Away   **Available**   Unavailable

Call Forward:    CFU Time Condition:

Unconditional:   Call Forward No Answ:    CFN Time Condition:

Call Forward Busy:    CFB Time Condition:

Do Not Disturb:    \* DND Time Condition:

FWD Whitelist:  +

Presence Status

The above screenshot shows the available statuses, user can select a status depending on their availability and preferences. Once done, a NOTIFY message will be sent to the subscribers announcing the newly defined status.

To simplify the status viewing, a new column was added to the main Extensions page, listing all the extensions Presence Statuses, as displayed in the following figure:

Extensions									
Status	Presence Status	Extension	Name	Message	Type	IP and Port	Sync to Contacts	Extension Info ...	Options
<span style="color: green;">●</span> Idle	Do Not Disturb	2004		0/0/0	SIP(WebRTC)	192.168.5.64:5060 [L...]	Synced		
<span style="color: green;">●</span> Idle	Available	2005		0/1/1	SIP(WebRTC)	192.168.5.64:5062 [L...]	Synced		
<span style="color: green;">●</span> Idle	Chat	2006		0/0/0	SIP(WebRTC)	192.168.5.232:5060 ...	Synced		

Extensions Presence Status

## Setting Presence Status via User Portal

Users can also login to their portal to view and edit their Presence Status, this feature is available when accessing the user portal and navigating to **Basic Information**→**Extensions**→**Features**.

The same six statuses are also available, and users can select any status as displayed in the following screenshot:

The screenshot displays the 'Extension Information' page in a user portal. The left sidebar contains a menu with options like 'Basic Information', 'User Information', 'Personal Config', 'Extensions', 'CDR', 'Change Information', 'Personal Data', and 'Value-added Features'. The main content area is titled 'Extension Information' and has a 'Save' button in the top right. Underneath, there are tabs for 'Basic Settings', 'Features', and 'Specific Time'. The 'Features' tab is selected, showing 'Call Transfer' settings. A 'Presence Status' dropdown is set to 'Chat'. Below this are five tabs: 'Available', 'Away', 'Chat', 'Custom Presence Status', and 'Unavailable'. The 'Chat' tab is active. Under the 'Chat' tab, there are four rows of settings: 'Call Forward' (None), 'Unconditional:' (None), 'Call Forward No Answer:' (None), and 'Call Forward Busy:' (None). To the right of these are three 'Time Condition' dropdowns: 'CFU Time Condition' (All Time), 'CFN Time Condition' (All Time), and 'CFB Time Condition' (All Time).

*Presence Status in User Portal*

## Setting Presence Status via Feature Code

If the user is not having Web Access, the Presence feature can be accessed using feature code, and users can dial this code to get the corresponding voice prompt with various options in order to choose which presence status they want to put themselves into then follow the instructions to confirm the setting.

The default used feature code for Presence feature is \*48, users can access/edit this case from **Web GUI**→**Call Features**→**Feature Codes**:

Feature Maps	DND/Call Forward	Feature Misc	<u>Feature Codes</u>
<input type="button" value="Reset All"/> <input type="button" value="Default All"/>			
* Voicemail Access	<input type="text" value="*98"/>	<input checked="" type="checkbox"/>	* My Voicemail:
Code:			<input type="text" value="*97"/>
* Agent Pause:	<input type="text" value="*83"/>	<input checked="" type="checkbox"/>	* Agent Unpause:
			<input type="text" value="*84"/>
* Paging Prefix:	<input type="text" value="*81"/>	<input checked="" type="checkbox"/>	* Intercom Prefix:
			<input type="text" value="*80"/>
* Blacklist Add:	<input type="text" value="*40"/>	<input checked="" type="checkbox"/>	* Blacklist Remove:
			<input type="text" value="*41"/>
* Call Pickup on	<input type="text" value="**"/>	<input checked="" type="checkbox"/>	* Pickup In-call:
Ringing:			<input type="text" value="*45"/>
* Pickup Extension:	<input type="text" value="*8"/>	<input checked="" type="checkbox"/>	* Direct Dial Voicemail
			<input type="text" value="*"/>
* Direct Dial Mobile	<input type="text" value="*88"/>	<input checked="" type="checkbox"/>	Prefix:
Phone Prefix:			
* Call Completion	<input type="text" value="*12"/>	<input checked="" type="checkbox"/>	* Call Completion
Cancel:			<input type="text" value="*11"/>
* Listen Spy:	<input type="text" value="*54"/>		Request:
* Barge Spy:	<input type="text" value="*56"/>		Enable Spy:
			<input type="checkbox"/>
* PMS Wakeup Service:	<input type="text" value="*35"/>	<input checked="" type="checkbox"/>	* Whisper Spy:
			<input type="text" value="*55"/>
* Presence Status:	<input type="text" value="*48"/>	<input checked="" type="checkbox"/>	* Wakeup Service:
			<input type="text" value="*36"/>
			* Update PMS Room
			<input type="text" value="*23"/>
			Status:

*Presence Status Feature Code*

When dialing the Presence feature code, users have also six available states, below is the order you get on the voice prompt when dialing the feature code:

1. Unavailable: Press '1' to set the Available state.
2. Available: Press '2' to set Available state.
3. Away: Press '3' to set Away state.
4. Chat: Press '4' to set Chat state.
5. DND: Press '5' to set DND state.
6. Custom Presence Status: Press '6' to set the Custom state.

## Monitoring Presence Status

### Using VMPKs

In our scenario, we will be using a GRP phone to illustrate the use of VMPKs to monitor another SIP entity's Presence status.

**Note :**

Before proceeding with the presence watcher configuration, **it is important to note** that the phone should have a registered SIP accounts on the same UCM6xxx as the monitored extension.

The presence watcher can use one of the available accounts on the phone, at least one should be registered as illustrated on the following screenshot:

Account Status			
Account	SIP User ID	SIP Server	SIP Registration
Account 1	5001	192.168.5.143	Yes
Account 2			No
Account 3			No
Account 4			No
Account 5			No
Account 6			No

Account Status

Once the phone has a registered account, we can proceed to the presence watcher configuration on the phone's VMPK settings.

The Virtual Multi-Purpose Keys (VPK) configuration page is under the phone's **Web UI**→**Settings**→**Programmable Keys**→**Virtual Multi-Purpose Keys** tab. By default, all fixed VPKs are listed:

**Virtual Multi-Purpose Keys**

- ◆ If there is an account with no Default or Shared mode VPKs configured to it, then the account will not show up on the screen.
- ◆ An account can only be configured with either Default mode VPKs or Shared mode VPKs. If there are Default mode and Shared mode VPKs configured to it, please configure carefully. [Click to get more help](#)

Order	Mode	Account	Value	Label	Locked	
1	Line	Account 1	5001		<input type="checkbox"/>	⬆️ ⬆️
2	Line	Account 2			<input type="checkbox"/>	⬆️ ⬆️
3	Line	Account 3			<input type="checkbox"/>	⬆️ ⬆️
4	Line	Account 4			<input type="checkbox"/>	⬆️ ⬆️
5	Line	Account 5			<input type="checkbox"/>	⬆️ ⬆️
6	Line	Account 6			<input type="checkbox"/>	⬆️ ⬆️

VMPKs Configuration

Select **Presence Watcher** from the drop-down **Mode** menu and choose the monitoring account. Under **Value** enter the monitored extension and press **Save**.

The figure below shows the steps mentioned :

Order	Mode	Account	Value	Label	Locked
1	Line	Account 1	5001		<input type="checkbox"/>
2	Presence Watcher	Account 1	* 5002		<input type="checkbox"/>
3	None				<input type="checkbox"/>
4	Line				<input type="checkbox"/>
5	Shared				<input type="checkbox"/>
6	Speed Dial				<input type="checkbox"/>
7	Busy Lamp Field (BLF)				<input type="checkbox"/>
	Presence Watcher				<input type="checkbox"/>
	Eventlist BLF				<input type="checkbox"/>
	Speed Dial via Active Ac...				<input type="checkbox"/>
	None				<input type="checkbox"/>

VMPKs with Presence Watcher

Users can also use the following p-value to provision the VMPK with Presence Watcher mode:

Mode Name	Mode String	Mode P-Value
Presence Watcher	presencewatcher	12

Presence Watcher P-Value

Once done, the phone will display the new VMPK with the monitored extension and status icon as shown in this screenshot :

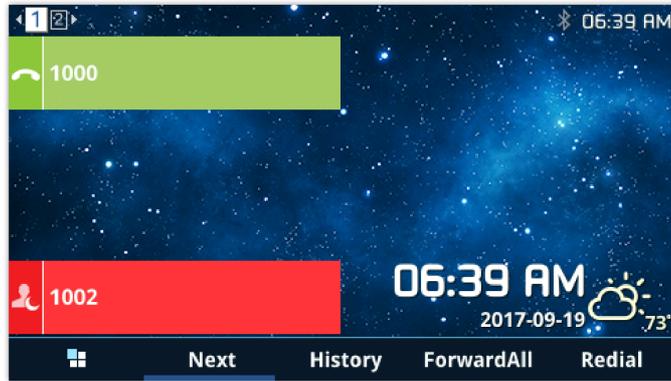


Custom Presence Status on GRP261X

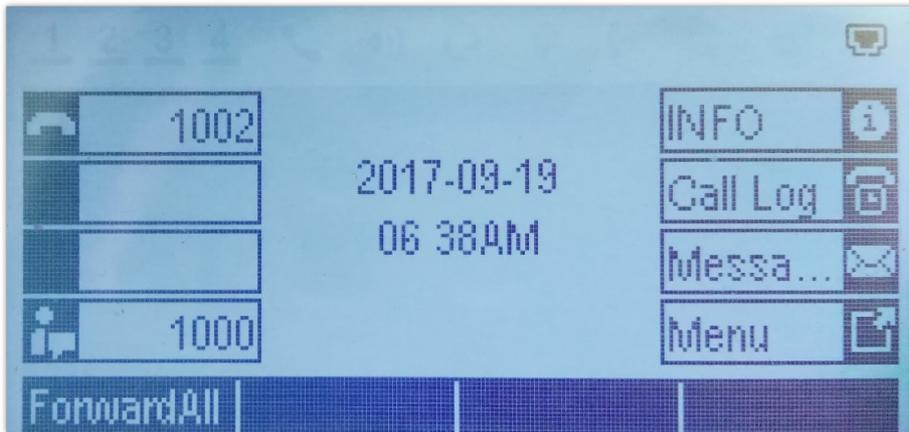
Below are some examples of different presence statuses on VMPKs for the GRP260x, GXP21xx and GXP17xx series :



Presence "Away" Status on GRP260X



Presence "DND" Status on GXP21XX



Presence "Chat" Status on GXP17XX

Six presence statuses lead to six VMPKs and icons states. Each status is indicated by a different icon on the LCD and different LED colors and Label colors (GXP21XX, GRP261x, and GRP2624/GRP2634/GRP2636/GRP2650/GRP2670 only).

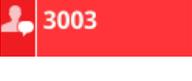
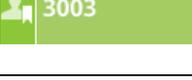
Please find the icon indications below for different Presence Status:

VPK Mode	State	Icon + Label	LED Status
Presence Watcher	Available	 5001	GREEN
	Away	 5001	GREEN
	Chat	 5001	RED
	Custom Status	 5001	GREEN
	DND	 5001	RED
	Unavailable	 5001	OFF

VPK Icon Indications on GRP261x

VPK Mode	State	Icon + Label	LED Status
Presence Watcher	Available	 5002	GREEN
	Away	 5002	GREEN
	Chat	 5002	RED
	Custom Status	 5002	GREEN
	DND	 5002	RED
	Unavailable	 5002	OFF

VPK Icon Indications on GRP260x

VPK Mode	State	Icon + Label	LED Status
Presence Watcher	Available	 3003	GREEN
	Away	 3003	GREEN
	Chat	 3003	RED
	Custom Status	 3003	GREEN
	DND	 3003	RED
	Unavailable	 3003	OFF

VPK Icon Indications on GXP21xx

VPK Mode	State	Icon + Label	LED Status
Presence Watcher	Available	 1000	GREEN
	Away	 1000	GREEN
	Chat	 1000	RED
	Custom Status	 1000	GREEN
	DND	 1000	RED
	Unavailable	 1000	OFF

*VPK Icon Indications on GXP17xx*

## Using Extension Boards and MPKs

Users have also the ability to set presence watcher on phone MPKs (Multi-purpose Keys), and connected Extension Boards.

For MPKs configuration, similarly to the VMPKs configuration, you need to have a phone supporting Physical Multi-Purpose Keys. For instance, GXP2130 / GXP2160 / GXP1628 / GRP2604 / GRP2614 / GRP2616 / GRP2634 / GRP2636 are offering physical MPKs, and you can do the same configuration for Presence Watcher. This is available on phone **Web UI**→Settings→Programmable Keys→Multi-Purpose Keys.

**Note:** Using MPKs, the Presence Watcher feature will be limited in comparison with VMPKs and Extension Boards since these two offer the presence state icon and labels in addition to LED indications. The six available Presence Statuses will have the following LED states when using MPKs:

Presence Watcher	Available, Away, Custom Presence Status	GREEN LED
Presence Watcher	Chat, DND	RED LED
Presence Watcher	Unavailable	LED Off

*MPKs LED States*

Users can also use Extension Boards for Presence Watcher configuration.

- GXP2140 and GXP2170 support extension module GXP2200Ext.
- GRP2615, GRP2624, GRP2650 and GRP2670 support extension module GBX20.

**Note**

The Extension Board configuration is available under web UI→Settings→Extension Boards.

Following are examples of LED status on extension boards:

		
Available	DND	Unavailable

Ext Presence Status (GXP2200)

## Supported Devices

Model	Supported using VPK (Visual Status)	Supported using MPK (LED Status)	Supported using EXT Board (LED Status)	Firmware
<b>GXP21xx Series</b>				
GXP2130 v2	✓	✓	✗	1.0.9.25 or higher
GXP2135	✓	✗	✗	
GXP2140	✓	✗	✓	
GXP2160	✓	✓	✗	
GXP2170	✓	✗	✓	
<b>GXP17xx Series</b>				
GXP1760/W	✓	✗	✗	1.0.1.28 or higher
GXP1780	✓	✗	✗	
GXP1782	✓	✗	✗	
<b>GXP16xx Series</b>				
GXP1610/1610P/1615	✗	✓	✗	1.0.4.67 or higher
GXP1620/1625	✗	✓	✗	
GXP1628	✗	✓	✗	
GXP1630	✗	✓	✗	
<b>GRP260x Series</b>				

GRP2602	✓	✗	✗	1.0.1.18 or higher
GRP2603/P	✓	✗	✗	
GRP2604/P	✓	✓	✗	
GRP261x Series				
GRP2612/P/W/G	✓	✗	✗	1.0.5.48 or higher
GRP2613	✓	✗	✗	
GRP2614	✓	✓	✗	
GRP2615	✓	✗	✓	
GRP2616	✓	✓	✗	
GRP2624	✓	✗	✓	
GRP2634	✓	✓	✗	
GRP2636	✓	✓	✗	
GRP2650	✓	✗	✓	
GRP2670	✓	✗	✓	