



Grandstream Networks, Inc.

UCM6xxx Series

PMS API Guide



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SUPPORTED DEVICES

The following table shows devices supporting PMS API feature:

Table 1: Supported Devices

Model	Supported	Firmware
UCM6200	Yes	1.0.19.20 or higher
UCM6510	Yes	1.0.19.20 or higher

INTRODUCTION

Property Management System or PMS is a software application used in the hospitality industry to automate some hotel functions such as guest booking, guest details, etc...

Grandstream UCM6XXX series have integrated multiple PMS platforms (i.e. HSC, Mitel, HMobile) providing following hospitality features: Changing Display Name, Permission, Call forwarding, DND and more.

Starting from firmware 1.0.19.20, PMS API is now supported to offer Hotel action with the UCM6200 & UCM6510 via HTTPS API. The API format is defined by Grandstream and this guide will help users configure and authenticate in order to use PMSAPI

This guide will focus on the CDR API old configuration and for more details about the new supported API, please refer to the following link:

http://www.grandstream.com/sites/default/files/Resources/UCM_API_Guide.pdf

CONNECTION AND AUTHENTICATION

PMSAPI works on HTTPS, the URL format syntax is as follows:

HTTPS://[UCMIP]:[Port]/pmsapi?token=[token]&data=[value]&format=xml

From this URL we can see three needed parameters: Token, Data and Format where:

Token:	Token is used for PMSAPI Authentication when doing actions such as check-in, check-out..., Refer to [Authentication Token]
Format:	Format that is used to mark which format the data is, such as xml;
Data:	Data the action data that will be used. Refer to [DATA FORMAT]

For example:

https://192.168.124.63:8443/pmsapi?token=63E780C3F321D13109C71BF81805476E&format=xml&data=<pms_data_request><checkin><address>1100</address><name>jjkk</name><extension>1100</extension><datein>20180202</datein><dateout>20180203</dateout></checkin></pms_data_request>

Authentication

The PMSAPI needs two authentication steps, one, which is used to connect, and the other for data.

Note: This guide will focus on the PMS API old configuration and for more details about the new supported API, please refer to the following link:

http://www.grandstream.com/sites/default/files/Resources/UCM_API_Guide.pdf

Step1:

Under UCM's WebGUI go to **Value-added Feature → API Configuration → HTTPS API Settings(Old) → Basic Settings**, check Enable option under Basic Settings, then Enable PMSAPI as well, users may also change and configure other fields such as Username and password please check below screenshot.



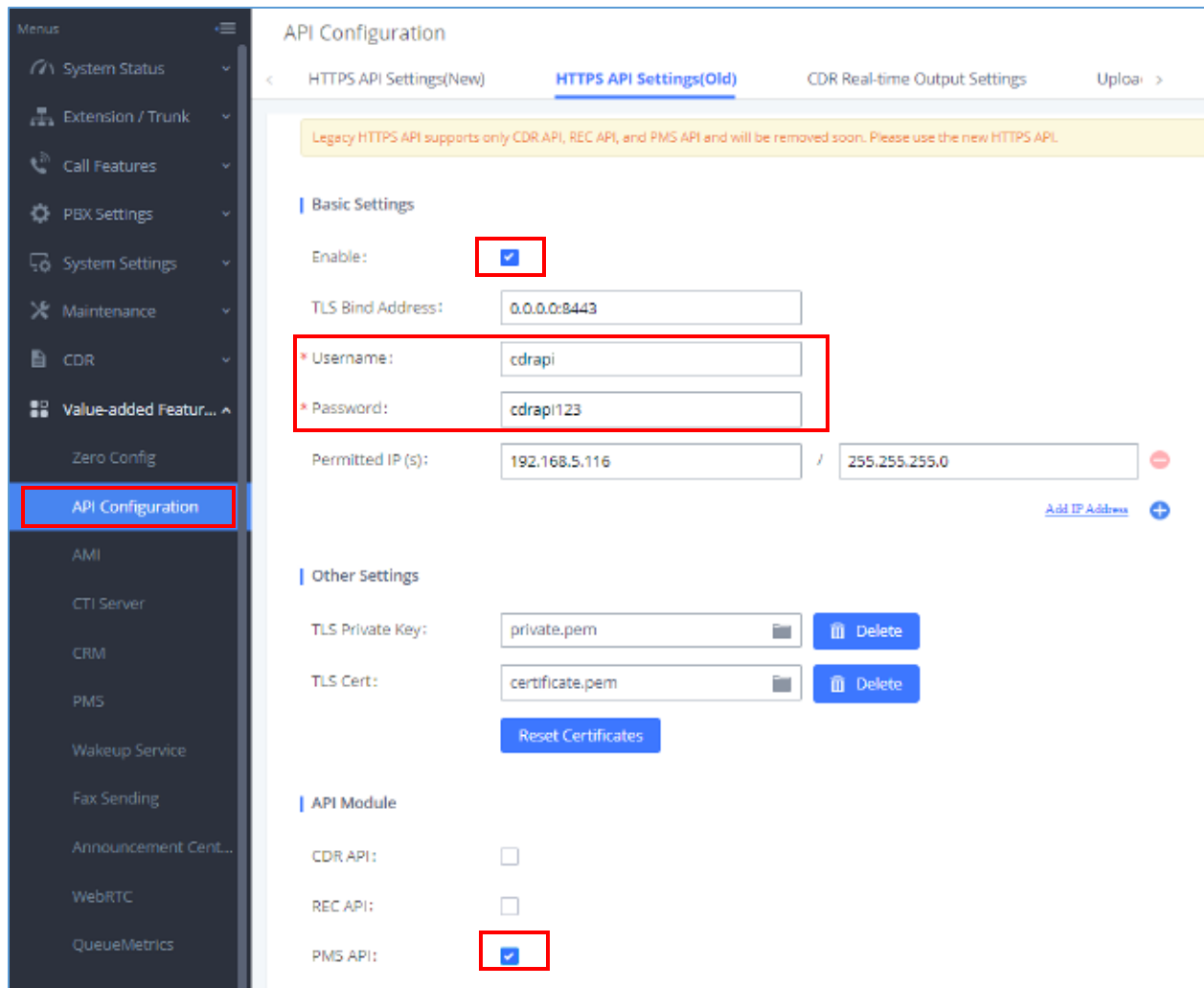


Figure 1: HTTPS API Settings(Old)

Step 2:

Under the UCM's WebGUI go to **Value-added Feature** → **PMS** → **Basic Settings**, choose PMS Module as PMSAPI and configure the username and password, we can also go to Room Status to create rooms or go to Wakeup Service, Mini Bar, Maid to configure them as well depending on the users requirement. Then save and apply the changes.



Menus

- System Status
- Extension / Trunk
- Call Features
- PBX Settings
- System Settings
- Maintenance
- CDR
- Value-added Featur...
 - Zero Config
 - API Configuration
 - AMI
 - CTI Server
 - CRM
 - PMS**
 - Wakeup Service
 - Fax Sending
 - Announcement Cent...
 - WebRTC
 - QueueMetrics

PMS

Basic Settings

Room Status

Wakeup Service

Mini Bar

Maid

PMS Module:

PMSAPI

Wakeup Prompt:

Wake Call

Upload Audio File

* Username:

username

* Password:

password

Back Up Voicemail

☐

Recordings:

Figure 2: PMS Basic Settings

Connection

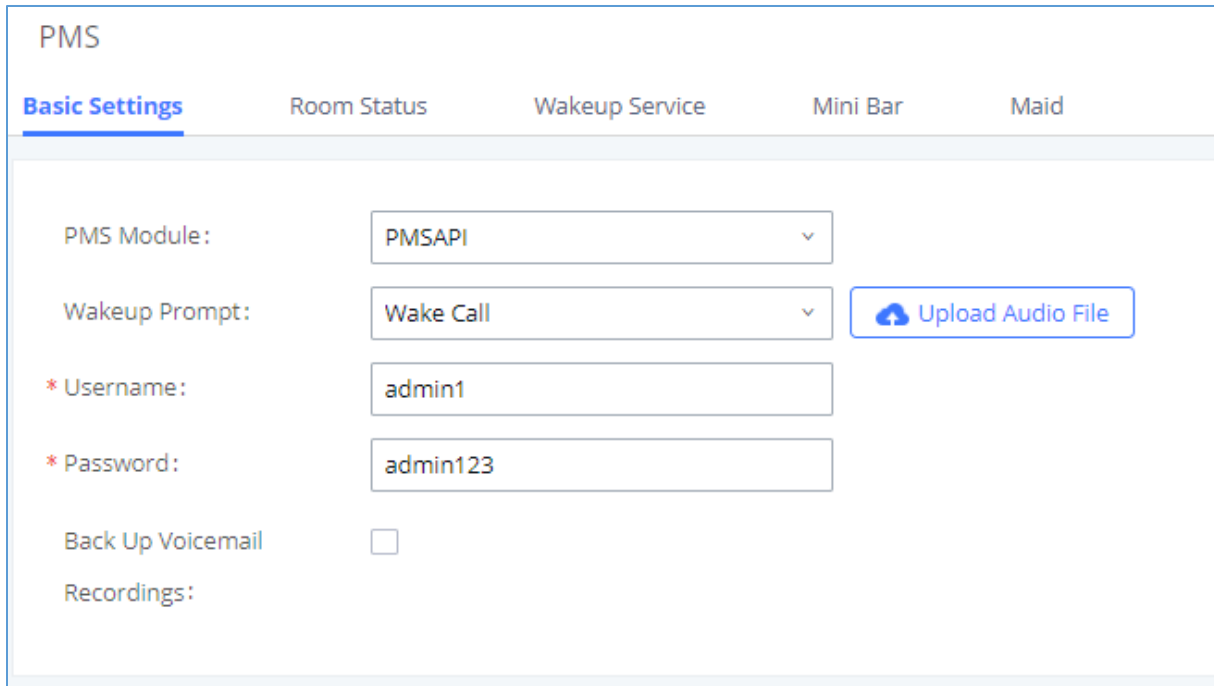
To authenticate the connection, we should use the username and password on the API Configuration Page, in order to do Digest authentication.

Authentication Token

This token is used on the URL, and created with the username and password configured on the PMS page, use md5 to encrypt username and password.

Token = MD5(username+password)



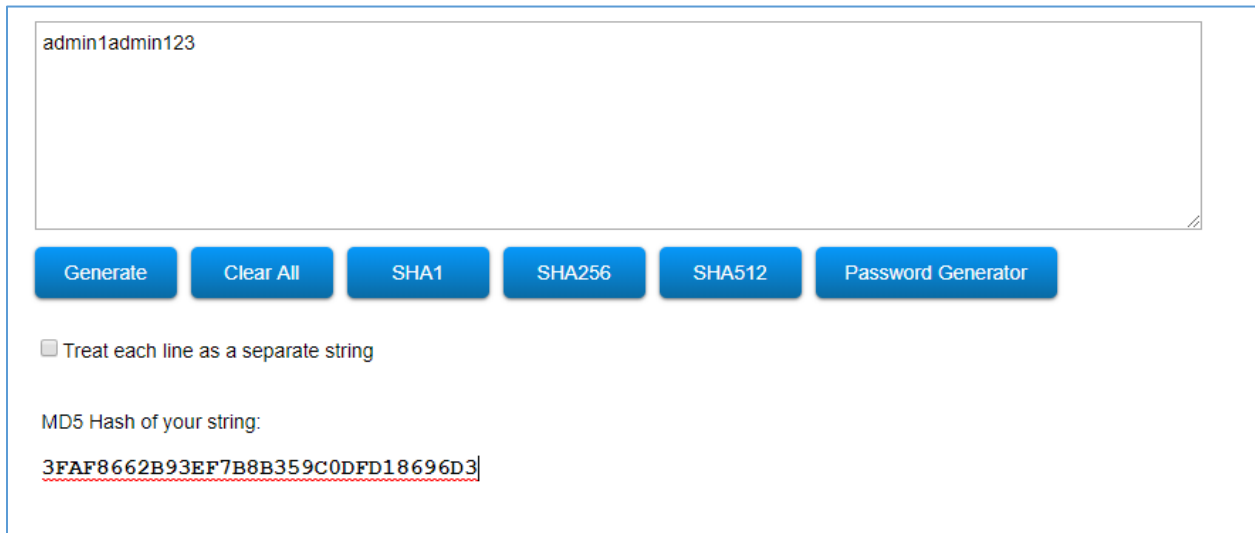
Example:

The screenshot shows the 'PMS' settings interface with tabs for 'Basic Settings', 'Room Status', 'Wakeup Service', 'Mini Bar', and 'Maid'. The 'Basic Settings' tab is active. It contains the following fields:

- PMS Module:** A dropdown menu with 'PMSAPI' selected.
- Wakeup Prompt:** A dropdown menu with 'Wake Call' selected, and an 'Upload Audio File' button with a cloud icon.
- * Username:** A text input field containing 'admin1'.
- * Password:** A text input field containing 'admin123'.
- Back Up Voicemail:** A checkbox that is currently unchecked.
- Recordings:** A label with no associated input field.

Figure 3: PMS Basic Settings

And then using any MD5 generator we can generate the authentication token as showing in below figure



The screenshot shows an online MD5 generator tool. It features a large text input area at the top containing the string 'admin1admin123'. Below the input area are six blue buttons: 'Generate', 'Clear All', 'SHA1', 'SHA256', 'SHA512', and 'Password Generator'. A checkbox labeled 'Treat each line as a separate string' is located below the buttons and is currently unchecked. At the bottom, the text 'MD5 Hash of your string:' is followed by the generated hash '3FAF8662B93EF7B8B359C0DFD18696D3', which is underlined in red.

Figure 4: Generating Auth Token

DATA FORMAT

Below is data format of all supported PMSAPI actions on firmware 1.0.19.18, this can be updated in future firmware.

Responses

The response of PMSAPI includes a code and description. For example:

If an action is successful, it will get the response message "[0] SUCCESS !".

Other codes and descriptions can be found on below table.

Table 2: Data format

Code	Description
26	First name or last name too long !
25	First name or last name too long !
24	Dest address already checked in !
23	Dest address not exist !
22	Cleaning or repairing, cannot check in or be mov to !
21	PMSAPI not enable !
20	Not checked in !
19	Already checked in !
18	Address error !
17	Address and room not match !
16	Auth error !
15	In data error !
14	Format error !
13	No support action !
12	XML data error !
0	Success !
-100	Success, but language error, not set !
-9	Action error !



API COMMANDS AND EXAMPLES

In this chapter, we will show different actions as well as related examples and description:

Check-in

Check-in action is used to notify the arrival a Guest, below table shows the data and values to be configured.

Table 3: Check-in

Data	Description
address	Room or extension, identifier recognized by destination
room	Room number. It may be equal, or not, to the address value
account	Guest account number
firstname	Guest firstname
lastname	Guest lastname
language	Guest language
vipcode	Guest VIP code
datein	Arrival date, format YYYY/MM/DD hh:mm
dateout	Departure date, format YYYYMMDD hh:mm
credit	Guest credit money.
cos	Call permission 1 < 2 < 3 < 4
cidnumber	Cid number

- **Example**

```

</pms_data_request>
<pms_data_request>
<checkin>
  <address>1100</address>
  <room>1100</room>
  <account>1100</account>
  <firstname>John</firstname>
  <lastname>Doe</lastname>
  <language>EN</language>
  <vipcode>2</vipcode>
  <datein>2010/01/01 11:00</datein>
  <dateout>2010/01/07 13:00</dateout>
  <credit>9999900</credit>
  <cidnumber>11001100</cidnumber>
  <cos>3</cos>
</checkin>
  
```



Check-out

Check-out action is used to notify the departure a Guest, below table shows the data and values to be configured

Table 4: Check-out

Data	Description
address	Source address, Room or extension, identifier recognized by destination
room	Source room, Room number, It may be equal, or not, to the address value

- **Example**

```

</pms_data_request>
<pms_data_request>
<checkout>
  <address>1100</address>
  <room>1100</room>
</checkout>

```

Update

Update action is used to update data of a Guest, below table shows the data and values to be configured

Table 5: Update

Data	Description
address	Room or extension, identifier recognized by destination
room	Room number, It may be equal, or not, to the address value
account	Guest account number
firstname	Guest firstname
lastname	Guest lastname
language	Guest language
vipcode	Guest VIP code
datein	Arrival date, format YYYY/MM/DD hh:mm
dateout	Departure date, format YYYYMMDD hh:mm
credit	Guest credit money.
cos	call permission 1 < 2 < 3 < 4
cidnumber	Cid number



- **Example**

```
<pms_data_request>
<update>
  <address>1100</address>
  <room>1100</room>
  <account>1100</account>
  <firstname>John</firstname>
  <lastname>Doe</lastname>
  <language>EN</language>
  <vipcode>2</vipcode>
  <datein>20100101</datein>
  <dateout>20100107</dateout>
  <credit>9999900</credit>
  <cidnumber>11001100</cidnumber>
  <cos>3</cos>
</update>
</pms_data_request>
```

Mov

Mov action is used to notify the room change of a Guest, below table shows the data and values to be configured.

Table 6: Mov

Data	Description
address	Source address, Room or extension, identifier recognized by destination
room	Source room, Room number, It may be equal, or not, to the address value
d_address	Destination address, Room or extension, identifier recognized by destination
d_room	Destination room, Room number, It may be equal, or not, to the address value

- **Example**

```
<pms_data_request>
<mov>
  <address>1046</address>
  <room>1046</room>
  <d_address>1100</d_address>
  <d_room>1100</d_room>
</mov>
</pms_data_request>
```



Wakeup

Wakeup action is used to notify the guest for wakeup call, below table shows the data and values to be configured

Table 7: Wakeup

Data	Description
address	Room or extension, identifier recognized by destination
room	Room number, It may be equal, or not, to the address value
w_action	Action ID, 1 = set. 0 = cancel
w_mode	Mode: 1 = single (default). 2 = daily.
w_date	wakeup date format YYYYMMDD
w_time	wakeup time format HHMM

- **Example**

```
<pms_data_request>
<wakeup>
  <address>1100</address>
  <room>1100</room>
  <w_action>1</w_action>
  <w_mode>1</w_mode>
  <w_date>20140101</w_date>
</wakeup>
</pms_data_request>
```

