



OpenVox Communication Co., Ltd.



## **VS-GWM5012W**

# Wireless Trunking Gateway User Manual

Data version: R1.2.0  
Product Version: R1.2.0

## Announcement:

This manual is intended as an operating guide for the user only.

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## Preface

### Book Description.

- Part 1 Introduction to the Device Panel
- Part 2 Logging in
- Part 3 Operational status
- Part 4 Network Information Configuration
- Part 5 Advanced Settings
- Part 6 Equipment Operation

### This book is an agreement

#### 1. Command Line Formatting Conventions

style	meaning
/	Command line multilevel paths separated by "/"
[]	Indicates that the portion enclosed in "[]" is optional at the time of command configuration.
//	Lines starting with "//" are comment lines.
#	"#" is the linux system command input identification, after "#" is the linux operation command input by the user, after all linux commands are input, you need to press [Enter] to execute the commands.





	Linux scripts use # followed by a comment;
mysql>	Indicates the database operation, after ">", it is the database operation command that needs to be input by the user.

## 2. Graphical interface formatting conventions

style	meaning
<>	The pointed brackets "<>" indicate the name of the button, e.g., "Click on the <OK> button".
[]	Square brackets "[]" indicate window name, menu name, data table and data type fields, e.g., "Bring up the [New User] window."
/	Multi-level menus and multiple field descriptions of the same type are separated by "/". For example, the [File/New/Folder] multilevel menu represents the [Folder] menu item under the [New] submenu of the [File] menu.

## 3. Signs

Various symbols are used in this book to indicate areas where special attention should be paid during operation, and these symbols have the following meanings:

 warnings	The notes following this sign need to be given extra attention.
 take note of	Reminds of the precautions to be taken during operation and that improper operation may lead to operation failure.
 draw attention to sth.	Operations or information that require special attention to ensure that the device is configured successfully or works properly.
 clarifi cation	Make necessary additions and clarifications to the description of the operation content.

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# 1 Introduction to the device panel

## 1.1 Chassis Schematic

Module for Chassis VS-GW1202/1600/2120 Series



Figure 1-1-1 Front View

## 1.2 Board Schematic



Figure 1-2-1 VS-GWM5012W Board Schematic Diagram

As shown in Figure 1-2-1, the meaning of each mark is as follows

- 1) Indicator lamps: there are 3 indicator lamps from left to right are: fault lamp E power lamp P, running lamp R,; equipment after normal operation of the power lamp is always green, running indicator lamp for the green flash, fault lamp does not light.
- 2) reset key: short press to reset, long press for more than 5 seconds to turn off the watchdog, E light will be on. Press and hold for more than 10 seconds to reset the temporary IP address 10.20.30.1, and the original IP address will be resumed after power failure and reboot.
- 3) The W interface is defined as follows

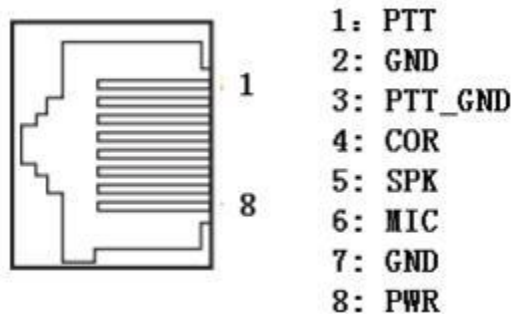


Figure 1-2-2 Interface Definition

## 2 Login

Log in to the gateway webpage: Open IE and enter http://IP, (IP is the wireless gateway device address, default 10.20.40.40), and enter the login interface as shown in Figure 1-1-1 below. Initial **user name: admin, password: 1**

**Long press reset for more than 10 seconds to restore temporary IP address 10.20.30.1, and restore original IP after power off and reboot.**

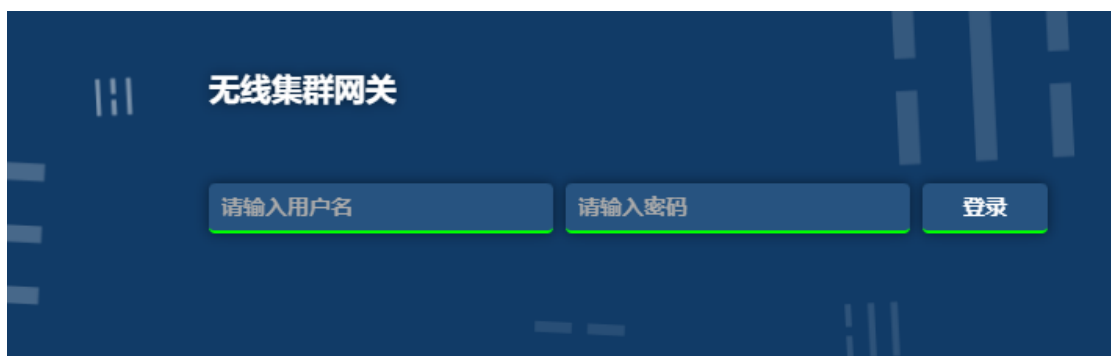


Figure 2-1-1 Gateway Login Interface

# 3 Operational status

## 3.1 Registration Status and Line Status

In [Registration Status], you can view the user registration status and line status information, **turn on the Auto Refresh button to see the real-time status**, as shown in Figure 3-1-1:

**Note:** The gateway has a built-in softswitch, so you can register yourself on port 5061 with a random username and password.



Figure 3-1-1

## 3.2 Network and version information

In [Network Information] and [Version Information], you can view the corresponding status information, as shown in Figure 7-2-1:



Figure 3-2-1



# 4 Network Information Configuration

## 4.1 Modifying local static IPs and configuring SIP servers

In [Basic Settings/Network Settings], you can modify the static network address of the gateway, note that you need to open the Edit button to modify it, and the SIP server can set the IP address, port, etc. of the primary and backup servers for the registration service and the primary and backup registration methods, as shown in Figure 4-1-1.



Figure 4-1-1



### clarification

Currently, the gateway IP acquisition method only supports static, and after modifying the network address information, you need to reboot the device to take effect.

## 4.2 Modify user number

The user number, registration period, hotline number, etc. of the gateway can be modified in [Basic Settings/Channel Settings], as shown in Figure 4-2-1:

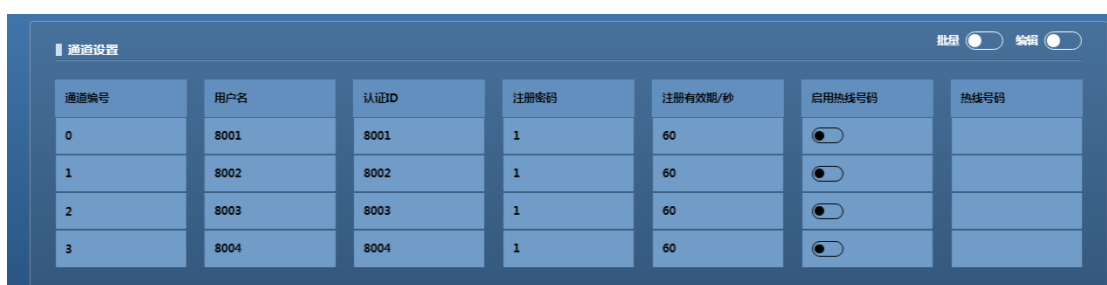


Figure 4-2-1

Click "Edit" to modify the user number information, as shown in Figure 4-2-1:

**Channel number:** 0, 1, 2, 3.

**Subscriber number:** The telephone number corresponding to the line.

**Authentication ID, registration password, registration period:** the account number, password and the interval between each registration used when registering with the platform.

**Hotline number:** the called phone number corresponding to the Hotline function key, triggered by carrier detection or voice detection according to the configuration (see **Detection Mode in Advanced Configuration**), if the detection mode is configured for carrier detection, it is triggered when the external input is low when the configuration is low active, and vice versa (the trigger time is more than 1 second). The default suspension is equivalent to the external input being low. Configuration of High Valid Low Valid is invalid when triggered according to voice detection. Hotline function is disabled when the hotline number is empty or the detection mode setting is off.

## 5 Advanced Settings

### 5.1 Gain and Media Configuration

In [Gain Configuration], you can configure the user's gain type, with positive gateway-to-radio gain being large and negative being small. The media supports G.711A/U as shown in Figure 5-2-1:

**Note: PTT Mode:** PTT mode on for cluster mode, off for audio mode, **cluster configured for PTT mode on**



The screenshot displays two configuration panels. The top panel, titled '媒体设置' (Media Settings), contains a table with columns for Line Number, Username, First Tone Code, Second Tone Code, DTMF Type, DTMF Tone, and RTP Send Interval. The bottom panel, titled '增益设置' (Gain Settings), contains a table with columns for Line Number, Username, DSP D->A, DSP A->D, CODEC D->A, and CODEC A->D. Both panels have '批量' (Batch) and '编辑' (Edit) buttons in the top right corner.

通道编号	用户名	第一语音编码	第二语音编码	DTMF类型	DTMF频率	RTP发送间隔
0	8001	G711A	G711U	RFC2833	101	20毫秒
1	8002	G711A	G711U	RFC2833	101	20毫秒
2	8003	G711A	G711U	RFC2833	101	20毫秒
3	8004	G711A	G711U	RFC2833	101	20毫秒

通道编号	用户名	DSP D->A	DSP A->D	CODEC D->A	CODEC A->D
0	8001	0dB	0dB	-1dB	0dB
1	8002	0dB	0dB	-1dB	0dB
2	8003	0dB	0dB	-1dB	0dB
3	8004	0dB	0dB	-1dB	0dB

Figure 5-2-1

### 5.2 Paging Configuration

In [Chase Call Configuration], you can configure the number of chase calls and under what circumstances.

通道编号	用户名	遇呼间隔/秒	遇4XX遇呼次数	遇6YE遇呼次数	遇呼时遇呼呼叫
0	8001	5	关闭	关闭	先按遇呼呼叫，之后遇呼遇呼
1	8002	5	关闭	关闭	先按遇呼呼叫，之后遇呼遇呼
2	8003	5	关闭	关闭	先按遇呼呼叫，之后遇呼遇呼
3	8004	5	关闭	关闭	先按遇呼呼叫，之后遇呼遇呼

## 5.3 COR Setting

In [COR Setting], you can set the COR priority in the **analog side** configuration, and this function is recommended to be disabled. If voice detection is enabled in the **network side configuration**, the voice sent from the network side can trigger PTT automatically when it exceeds the threshold value, and the smaller the negative threshold value is, the easier it is to trigger PTT. If voice detection is disabled, PTT can be triggered by signaling (SIPINFO messages and RFC2833 are supported).

COR设置						
• 模拟侧						
通道编号	用户名	模拟侧优先	载波电平	载波检测抑制时长/毫秒	载波采样时长/毫秒	
0	8001	<input type="checkbox"/>	高电平	100	250	
1	8002	<input type="checkbox"/>	高电平	100	250	
2	8003	<input type="checkbox"/>	高电平	100	250	
3	8004	<input type="checkbox"/>	高电平	100	250	
• 网络侧						
通道编号	用户名	启用语音检测	语音检测门限	前置语音时长/毫秒	后置语音时长/毫秒	PTT最大时长/秒
0	8001	<input checked="" type="checkbox"/>	-5	500	800	30
1	8002	<input checked="" type="checkbox"/>	-5	500	800	30
2	8003	<input checked="" type="checkbox"/>	-5	500	800	30
3	8004	<input checked="" type="checkbox"/>	-5	500	800	30

## 5.4 DTMF code setting and PTT setting

In [DTMF Code Setting], first enable the DTMF code function can be freely dialed from bottom to top by DTMF dialing mode, generally using any dialing mode, such as \*9#158\*\*\*\*\*1#, that is, \*9# number # of the way as shown in Fig. 5-1-1: Note that this function requires the car station to support the DTMF dialing function, and generally the analog car station and the hand station are supported.



Figure 5-1-1

PTT Mode: PTT mode on for trunking mode, off for audio mode, trunking **configured for PTT mode on**

### Power grab:

Analog side robbing detection mode: voice detection, carrier detection and no detection, voice detection can trigger a hotline call or send a SIPINFO message by detecting the voice (this function is not done yet), carrier detection can trigger a hotline call or send a SIPINFO message by the carrier detection foot of the station, and no detection means that this function is closed.

Preemption interval: the time interval between preemption messages.

Voice Detection Threshold: The smaller the threshold value, the easier it is to trigger PTT, **it is recommended to configure 0.**

Preemption messages: SIPINFO-DTMF and SIPINFO-REQUEST are supported.

Preemption code: configurable, default\*

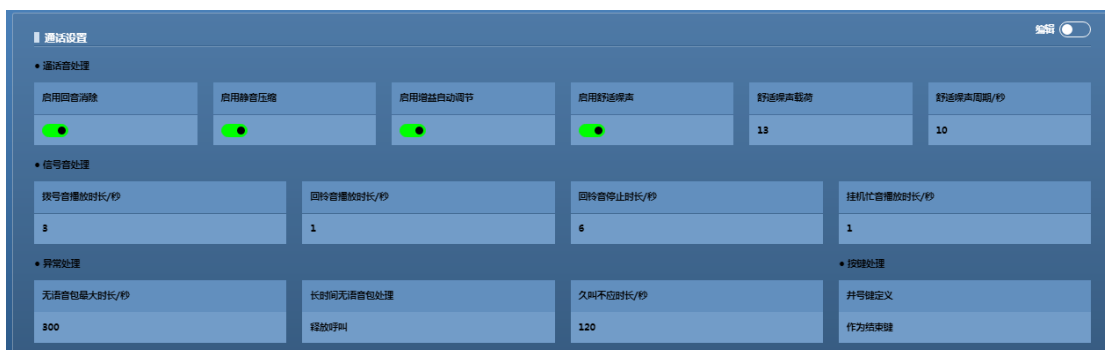
Delegation code: configurable, default #

DTMF: default recommended

## 5.5 Call setup

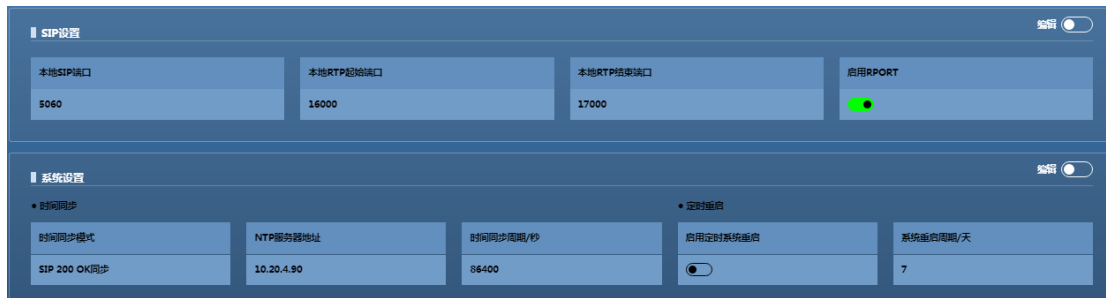
Call handling: it is recommended to just use the default value

Signal Processing: Dial tone playback length is the use of DTMF dialing is to use \*8# way to be useful, will play a dial tone, generally do not use. Ringback tone duration and stop duration generally do not move, hang up busy tone duration is the length of time after the phone tone playback, this can be modified according to user needs, you can also use the default value.



**Note: If no sound is detected on the input side of the gateway after mute compression is enabled, a packet will be sent in 10 seconds.**

## 5.6 SIP settings and system settings



Local SIP port: and

# 6 Device Operation

## 6.1 Reboot, factory, firmware, packet capture and data file operations

In [Device Operation], as shown in Figure 6-1-1:



Figure 6-1-1

**Reboot operation:** soft reboot the device.

**Factory Operation:** Restore the factory settings of the device.

**Firmware operation:** local upgrade, online firmware retention is useless for now.

**Packet grabbing operation:** You can set the time for grabbing packets, and then it must be stopped automatically before you can download it.

**Data file operations:** You can import and export database files.

## 6.2 Logging and logging operations

As shown in Figure 6-2-1:

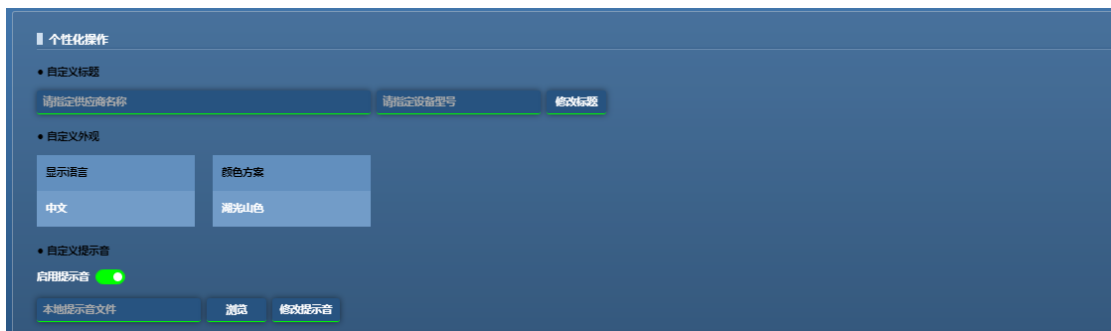


Figure 6-2-1

**Log operation:** the higher the level the more detailed the print

## 6.3 Personalized operation

As shown in Figure 6-3-1:



**Personalized Device:** You can change the name of the gateway in the upper left corner, such as "Wireless Trunk Gateway" in the picture.

**Language display:** can switch between Chinese and English

**Color scheme:** you can switch the skin color

**Enable tone:** you can change the paging tone, the tone file is .au file