

# PA168V MGCP FXS Gateway



## Http Setup Guide

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When PA168V MGCP FXS gateway is properly installed, you can set each parameter through PC and Web browser.

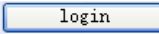
Details please refer to 《PA168 V MGCP FXS gateway Spec and Install》

### ➤ Configuration with the standard WEB browser

Double click  icon to open the IE. Input the IP address of the PA168V into address bar (e.g.192.168.1.100) , and then input password of the PA168V into the following page. Default ordinary password is 1234 and super password is 12345678. If the default password is invalid, please consult the supplier.

Network Settings					
iptype	static	ppp id		ppp pin	
local ip	192.168.1.100	subnet mask	255.255.255.0	router ip	192.168.1.254
dns	202.106.46.151	dns2	202.96.128.68	mac	00-09-45-0a-45-2e
Audio Settings					
codec1	g729	codec2	g711a	codec3	g711u
codec4	gsm	codec5	null	codec6	null
vad	<input checked="" type="checkbox"/>	agc	<input type="checkbox"/>	aec	<input checked="" type="checkbox"/>
audio frames	2	g.723.1 high rate	<input checked="" type="checkbox"/>	ilbc payload	98
jitter size	0	handset in(0-15)	15	handset out(0-31)	20
dual mode	pstn first	dual mode prefix	30		
MGCP Protocol Settings					
service type	common	service addr	203.93.9.57	register ttl	60
nat traversal	disable	nat addr		nat ttl	30
phone number	272727	endpoint id		domain name	
register port	5060	rtp port	6002	tos	0
local type	normal	dtmf	inband audio	dtmf payload	101
super password	12345678	debug	output		
Other Settings					
password	1234	upgrade type	disable	upgrade addr	
snmp ip	255.255.255.255	use daylight	<input type="checkbox"/>		
timezone	(GMT+08:00)Beijing, Hong Kong, Urumqi				
Save Settings		Address Book		Upgrade Firmware	

Fig 1.1 Http Setting

With Debug set 0[disable], please input super password; while Debug is not set as 0[disable], please input ordinary password. Then click  button.

The following configured page will popup.

➤ **Network Setting:**

Network Settings					
iptype	<input type="text" value="static"/>	ppp id	<input type="text"/>	ppp pin	<input type="text"/>
local ip	<input type="text" value="192.168.1.100"/>	subnet mask	<input type="text" value="255.255.255.0"/>	router ip	<input type="text" value="192.168.1.254"/>
dns	<input type="text" value="202.106.46.151"/>	dns2	<input type="text" value="202.96.128.68"/>	mac	<input type="text" value="00-0d-ea-00-00-03"/>

Fig 1.2 Network Setting

- **iptype:** Set how PA168V FXS Gateway gets relevant network parameters by selecting the corresponding item from drop down list.
  - **static ip:** Select this item to authorize users to set IP address, subnet mask, router IP address and dns IP of PA168V FXS gateway manually.
  - **dhcp:** Select this item to enable DHCP mode, and it will assign the IP address and other net parameters automatically.
  - **pppoe:** Those ADSL, Cable Modem and Ether net users who take the way of virtual dial-up please select this item for it is a protocol especially designed for them.
  - **modem:** Users of PA168V FXS gateway attached with modem, please select this item. Then please fill user name and password of dial-up network into **ppp id** and **ppp pin** fields.
- **ppp id:** With **pppoe** selected in **iptype** drop down list, please enter the ADSL user name here; with **modem** selected in **iptype** drop down list,

please enter the modem dial-up user name here. The length of the user name is limited within 40 bytes.

- **ppp pin:** With **pppoe** selected in **iptype** drop down list, please enter the ADSL password here; with **modem** selected in **iptype** drop down list, please enter the modem dial-up password here. The length of the password is limited within 24 bytes.
- **local ip:** With **static ip** selected in **iptype** drop down list, please enter IP address acquired from the administrator or ISP.
- **subnet mask:** With **static ip** selected in **iptype** drop down list, please enter subnet mask acquired from the administrator or ISP.
- **router ip:** With **static ip** selected in **iptype** drop down list, please enter the default Gateway IP address on which the PA168V locates in the network.
- **dns:** With **static ip** selected in **iptype** drop down list, please enter the IP address of the main DNS server .
- **dns (spare):** With **static ip** selected in **iptype** drop down list, please enter IP address of backup DNS server here.
- **mac:** MAC address is the physical address supplied by the Ethernet NIC. Every PA168V FXS Gateway is preset while shipped from the factory with

a unique algorithm MAC address printed on the back of the base.

➤ **Audio settings:**

Audio Settings					
codec1	<input type="text" value="g729"/>	codec2	<input type="text" value="g711a"/>	codec3	<input type="text" value="g711u"/>
codec4	<input type="text" value="gsm"/>	codec5	<input type="text" value="null"/>	codec6	<input type="text" value="null"/>
vad	<input checked="" type="checkbox"/>	agc	<input type="checkbox"/>	aec	<input checked="" type="checkbox"/>
audio frames	<input type="text" value="2"/>	g.723.1 high rate	<input checked="" type="checkbox"/>	ilbc payload	<input type="text" value="98"/>
jitter size	<input type="text" value="0"/>	handset in(0-15)	<input type="text" value="15"/>	handset out (0-31)	<input type="text" value="20"/>
dual mode	<input type="text" value="pstn first"/>	dual mode prefix	<input type="text" value="30"/>		

Fig 1.3 Audio Setting

- **codec1:** Set the priority 1 of the audio compression algorithm. The options are **g729**, **g7231**, **g711u**, **g711a**, **gsm**, **ilbc** and **null**.
- **codec2:** Set the priority 2 of the audio compression algorithm. The options are **g729**, **g7231**, **g711u**, **g711a**, **gsm**, **ilbc** and **null**.
- **codec3:** Set the priority 3 of the audio compression algorithm. The options are **g729**, **g7231**, **g711u**, **g711a**, **gsm**, **ilbc** and **null**.
- **codec4:** Set the priority 4 of the audio compression algorithm. The options are **g729**, **g7231**, **g711u**, **g711a**, **gsm**, **ilbc** and **null**.
- **codec5:** Set the priority 5 of the audio compression algorithm. The options are **g729**, **g7231**, **g711u**, **g711a**, **gsm**, **ilbc** and **null**.
- **codec6:** Set the priority 6 of the audio compression algorithm. The options are **g729**, **g7231**, **g711u**, **g711a**, **gsm**, **ilbc** and **null**.

- **vad:** Enable/disable VAD (voice activity detection).
  
- **agc:** Enable/disable AGC.
  
- **aec:** Enable/disable VEC.
  
- **audio frame:** Set audio frames in RTP package. Minimum is 1 and maximum is 8.
  
- **g.723.1 high rate:** enable/disable g.723.1 high rate. G.723.1 high rate is 6.3kbps, low rate is 5.3kbps.
  
- **ilbc payload :** Set the payload type of RTP package whne ILBC codec selected to DTMF delay. The value range is 96-255.
  
- **jitter size :** Set buffer size of RTP package. The value range is 0-32.
  
- **handset in:** Set the volume of handset input.
  
- **handset out:** Set the volume of handset output.
  
- **Dual mode:** Set this item to enable or disable the PSTN line.
  - **Disable:** With this item selected, PSTN line is disabled.
  
  - **PSTN First:** This item selected, PA168V FXS gateway will choose PSTN calling first.
  
  - **IP First:** This item selected, PA168V FXS gateway will choose IP calling first.

- **dual modes prefix:** When IP first is set in the dual modes setting, setting switches to PSTN prefix such as 9.

➤ **MGCP Protocol Settings:**

MGCP Protocol Settings					
service type	common	service addr	203.93.9.57	register ttl	60
nat traversal	disable	nat addr		nat ttl	30
phone number	82378808	endpoint id		domain name	
register port	1720	rtp port	1722	tos	0
local type	normal	dtmf	rfc2833	dtmf payload	101
super password	12345678	debug	output		

Fig 1.4 MGCP Protocol Setting

- **service type:** This option is used to accommodate the miscellaneous requirements of the system providers.
  - **Common:** no special requirements
  - **Huawei:** Use Huawei's system
  - **zte:** Use ZTE's system
  - **harbour:** Use Harbour's system
  - **utstarcom:** Use UtstarCom's system
  - **uptech:** Use Uptech's system
  - **keimen:** Use Keimen's system
- **service addr** Please put the URI (domain name/IP address : service port) of the Call Agent into "**service addr**". When the default service port 2727

is used, “: service port” can be omitted.

- **register ttl** : IP phone will send a keep-alive registration message to CA(call agent) every “**register ttl**” seconds. The minimum value is 10, maximum value is 65535. Default is 60.
  
- **nat traversal**: When the IP phone with private IP address need communicate with other IP phones in a different LAN or on Internet, please select an item from dropdown list.
  - **disable**: Select this item when the log in server and IP phone in the same LAN, or the log in system supports the IP phone working behind the LAN.
  
  - **enable**: When the system does not support IP phone working behind the LAN, please select this item to search public IP address of the NAT device. With this item selected, “**nat addr**” field will be activated. Besides, port mapping (port forwarding) needs to be properly set up on NAT device.
  
- **nat addr**: When “**nat traversal**” is set to “**enable**”, please put the domain name of the servers ( These web server helps to find out the public IP of the IP phone) into “**nat addr**”, such as [www.whatismyip.com](http://www.whatismyip.com).
  
- **nat ttl**: When IP phone sit behind a NAT device, it will send packets to



server every “**nat ttl**” seconds to keep the port mapping on the NAT device alive. “**nat ttl**” is an integer between 10 and 65535, default value is 20.

- **phone number:** The local phone number or username of this phone, usually is allocated by system.
- **endpoint id:** Please enter local endpoint id (eg.,aaln/0) .
- **domain name:** Please enter domain name of endpoint id.
- **register port:** The default port number for MGCP protocol is 2427.
- **rtp port:** RTP port is the port transferring and receiving voice packets using UDP protocol. This is an even number between 1024 and 65535.
- **tos:** Set the TOS field of the IP header of the RTP packets. The bigger this value is 0 , the higher priority the packet is 224.
- **local type:** This parameter refers to how IP phone authenticate itself to the CA(call agent). Please select an item from dropdown list.
  - **normal:** Default authenticate mode.
  - **cnc auth:** a special authenticate mode used CNC system only.
- **dtmf:** Set DTMF signal sending way by selecting **inband audio**,or **rfc 2833** from list box.

- **dtmf payload** : When DTMF select **rfc 2833**.This parameter can be used indicating type of RTP payload type. The value can be use integer 96-101.
- **super password**: Set the super password of the phone.(Default super password is 12345678).
- **debug**: Set the debug level of the phone.
  - **disable**: Disable output the debug message by selecting this item.
  - **output**: Output the operation information to the window, such as register, input by selecting this item.
  - **output all**: Output all debug information and data in test window by selecting this item.
  - **remote debug**: Save the debug information in SDRAM of IP phone by selecting this item.
  - **no check**: Disable checking firmware tags when upgrading. This is not suggested, because it will increase the risk of upgrading the wrong firmware into the phone.

➤ **Other settings:**

Other Settings			
password	<input type="text" value="1234"/>	upgrade type	<input type="text" value="disable"/>
sntp ip	<input type="text" value="0.0.0.0"/>	use daylight	<input type="checkbox"/>
timezone	<input type="text" value="(GMT+08:00)Beijing, Hong Kong, Urumqi"/>		
<input type="button" value="Save Settings"/>		<input type="button" value="Address Book"/>	<input type="button" value="Upgrade Firmware"/>

Fig 1.5 Other Setting

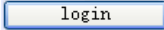
- **password:** Set the ordinary password of the phone. (Default is 1234).
- **upgradetype:** Set the auto-upgrade type of the PA168V FXS gateway.
  - **disable** : Disable auto-upgrade .
  - **all:** pa168V will find the matching firmware binary file and configuration file of the hardware type only at the upgrade server specified by **upgradeaddr** item .
  - **mac:** pa168V will find the matching firmware binary file and configuration file of the MAC address only at the upgrade server specified by **upgradeaddr** item .
  - **ppp id:** pa168V will find the matching firmware binary file and configuration file of the ppp id only at the upgrade server specified by **upgradeaddr** item .
  - **account:** pa168V will find the matching firmware binary file and configuration file of the account only at the upgrade server specified by **upgradeaddr** item .
  - **phonenumber:** pa168V will find the matching firmware binary file and configuration file of the phone only at the upgrade server specified by **upgradeaddr** item .
- **upgrade addr:** Put URL of upgrade server supplying upgrade program and configurations into this field , URL rules is below:

HTTP://IP address or domain name: port number

FTP: //IP address or domain name: port number

TFTP: //IP address or domain name: port number

- **sntp ip:** Fill IP address of time server here. When network works without Internet, Fill special address IP 255.255.255.255 here.
- **use daylight:** Enable/disable daylight.
- **timezone:** Select correct time zone in list box.

When debug set as 0[disable], and if input ordinary password (default one is 1234), the following page will pop up after clicking . And only those parameters can be modified.

Network Settings					
iptype	<input type="text" value="static"/>	ppp id	<input type="text"/>	ppp pin	<input type="text"/>
local ip	<input type="text" value="192.168.1.100"/>	subnet mask	<input type="text" value="255.255.255.0"/>	router ip	<input type="text" value="192.168.1.254"/>
dns	<input type="text" value="202.106.46.151"/>	dns2	<input type="text" value="202.96.128.68"/>	mac	<input type="text" value="00-09-45-0a-45-2e"/>
Audio Settings					
codec1	<input type="text" value="g729"/>	codec2	<input type="text" value="g711a"/>	codec3	<input type="text" value="g711u"/>
codec4	<input type="text" value="gsm"/>	codec5	<input type="text" value="null"/>	codec6	<input type="text" value="null"/>
vad	<input checked="" type="checkbox"/>	agc	<input type="checkbox"/>	aec	<input checked="" type="checkbox"/>
audio frames	<input type="text" value="2"/>	g.723.1 high rate	<input checked="" type="checkbox"/>	ilbc payload	<input type="text" value="98"/>
jitter size	<input type="text" value="0"/>	handset in(0-15)	<input type="text" value="15"/>	handset out(0-31)	<input type="text" value="20"/>
dual mode	<input type="text" value="pstn first"/>	dual mode prefix	<input type="text" value="30"/>		
Other Settings					
password	<input type="text" value="1234"/>	upgrade type	<input type="text" value="disable"/>	upgrade addr	<input type="text"/>
sntp ip	<input type="text" value="255.255.255.255"/>	use daylight	<input type="checkbox"/>		
timezone	<input type="text" value="(GMT+08:00)Beijing, Hong Kong, Urumqi"/>				
<input type="button" value="Save Settings"/>		<input type="button" value="Address Book"/>		<input type="button" value="Upgrade Firmware"/>	

Fig 1.6 Setting Page using ordinary pin with Debug set as 0 [disable]

- **Save Settings:** Click this button to save the configuration and the phone will reboot. Once the phone reboots successfully, the new configuration is effective.

**Note** After entering set page, if **save settings** button is not clicked within 10 minutes, then when you click it again, the index page asking for pin will pop up again. Please input the password again to enter the set page and then click **save settings** button to confirm the modification.

- Adress Book:** Click this button to open the speed dial settings page. In this page, you can set and save the speed dial number by typing the name into the **Name** field and then entering the corresponding number following the name. For example, input Jack in Name field following 001, and then input 5989426454 into Phone number field. Then Jack's number 5989426454 is saved in phone book. Then please click **Save/Back** button. In normal state, you can use speed dial to call numbers saved in the phone book.

Phone Book					
No.	Name	Phone Number	No.	Name	Phone Number
001	Jack	5989426454	002	Allen	192.168.1.56
003			004		
005			006		
007			008		
009			010		

Fig 1.7 Phone Book Illustration

- Upgrade Firmware:** Click this button to update the program of the PA168V.

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without prior notice.*

*PA168V MGCP FXS Gateway Http Setup Guide (V1.60)*

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