AVS IPHSxx

IP SPEAKERS
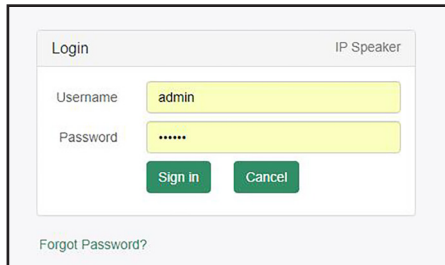USER MANUAL

Table of Contents

1 Overview

The AVS-IPHSxxxx Series of IP Speakers are designed for both indoor and outdoor installations. With compatibility for both the SIP and ONVIF protocols, they can be used across a variety of VoIP and CCTV applications. Support for up to 10 RTP Multicast addresses allows for integration with multiple simultaneous paging solutions. Support for Alarm relay input and HTTP commands allow for integration with external hardware to activate audio alerts. The speaker comes with pre-recorded audio alerts, with the ability to upload up to 10 customized audio alerts, and also with support for scheduling the broadcast of these alerts. Using the latest Opus 48K audio codec allows for crystal-clear broadcasts of live announcements, background music, and audio alerts in a wide array of industries.

2 Web Configuration

All settings for the AVS-IPHSxxxx speaker can be configured through the web interface. By factory default, the IP address will be assigned from the DHCP server automatically. If there is no DHCP server available, the IP address will be set to 192.168.5.200. The default credentials are listed below:
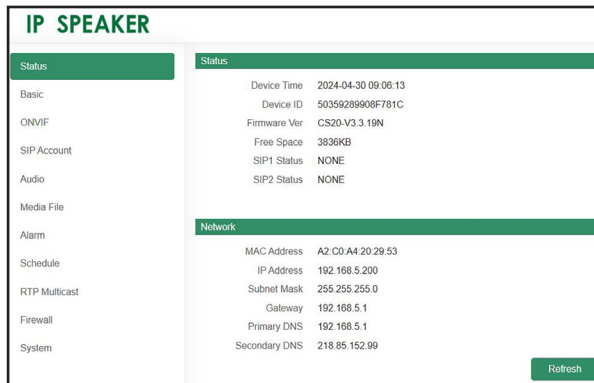
Username: admin
Password: tm1234

2.1 Status

Once you have successfully logged into the speaker, you will be directed to a Status page where you will find information such as the firmware version, free memory space, and SIP account status of the device, along with the current network information, including MAC Address, IP Address, Gateway, etc.
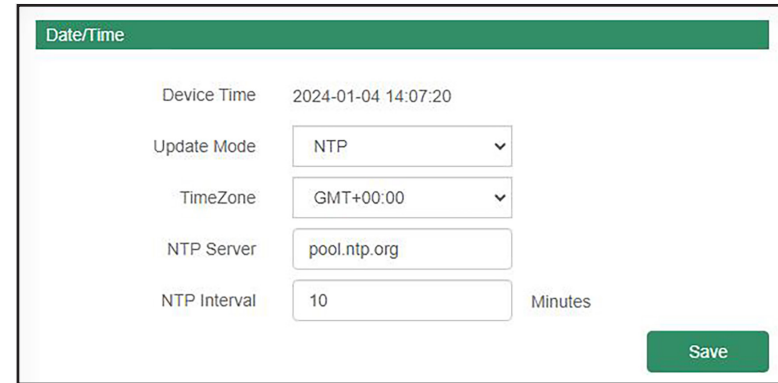
2.2 Basic

2.2.1 Date / Time
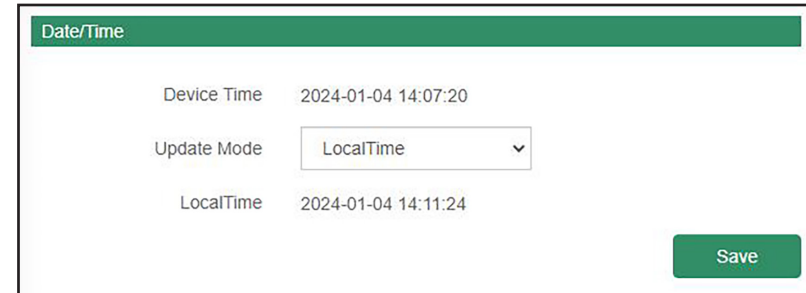
There are two modes for setting the current Date and Time: NTP or Local Time. NTP will allow you to synchronize with Internet Time Servers (NTP) and allow you to set the Time Zone offset for your region and also the synchronization interval. LocalTime will just use the local time of the PC being used to access the web interface and match it manually. For best results, if there is an active connection to the Internet, you should always use NTP.
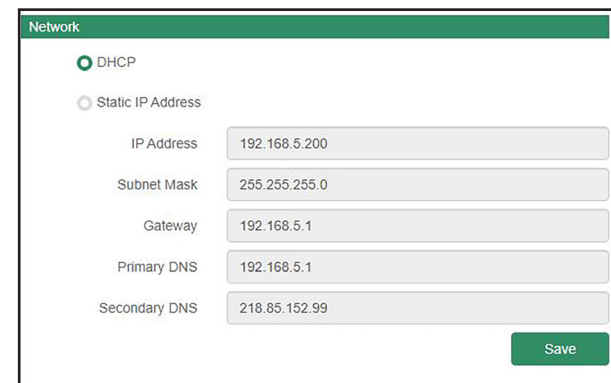
2.2.2 Network

In the Network section, you can choose to either acquire an IP address through a DHCP server or assign the device a static IP address. Please be mindful of all Gateway and DNS settings should you choose to assign a static address.

2.2.3 Advanced Network Settings

Within this section, you can choose to use an encrypted or unencrypted HTTP connection.

Network Advanced

Http/Https [Http&Https ▼] *Take effect after restart!

- Http&Https
- Http
- Https

[Save]
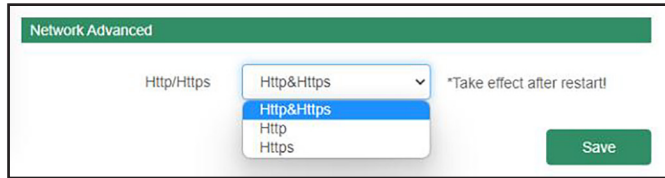
2.3 ONVIF

If you are trying to integrate with this speaker using the ONVIF protocol, please make sure the box next to "ONVIF Enable" is checked, and if needed change the credentials. Anonymous ONVIF connections are not supported.

ONVIF

Status	
Basic	ONVIF Enable ☑
ONVIF	User Name admin
SIP Account	Password tm1234
Audio	
Media File	[Save]

2.4 SIP Account

This IP Speaker supports two different SIP account profiles. Please make sure to choose the account profile from the drop-down menu and make sure to fill out all necessary information and click on the Save button when finished. If successfully configured, you should see a confirmation message displayed.

Parameter	Description
Outnound Proxy	Choose disable or enable the proxy as needed.
Expire Time	Set the expire time of registered account information.
Ringing Tone	Choose from the 5 pre-recorded messages or from one of the possible 10 custom-uploaded sound files.
Auto Answer	Choose to answer immediately or after a delayed number of seconds when there is an incoming call.
Incoming Notify	This allows to send an HTTP command when an incoming call is detected.
Answer Notify	This allows to send an HTTP command when an incoming call is answered.
SIP Advanced	Choose from UDP/TCP or TLS Protocols

SIP Set

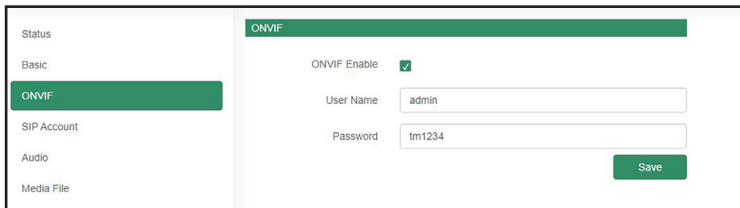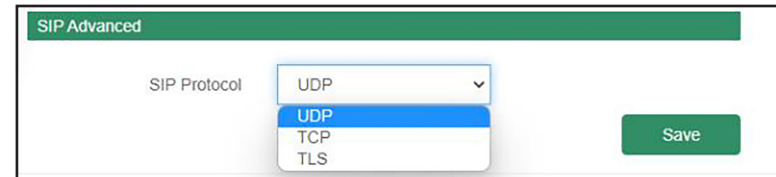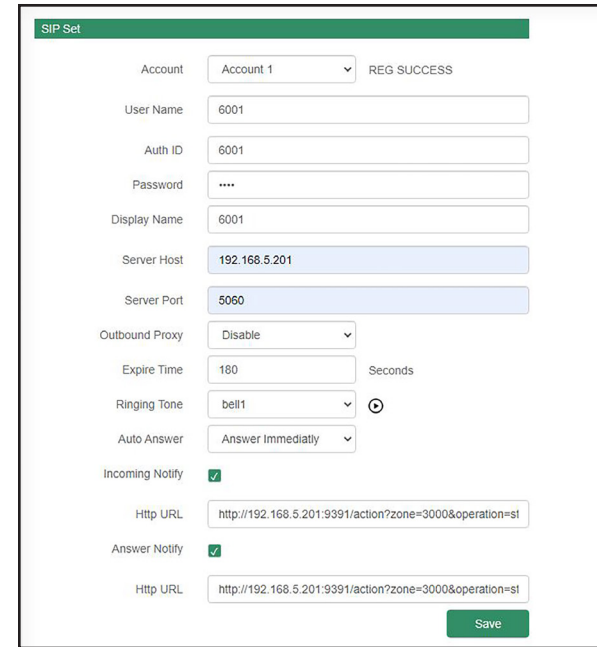|	
Account	[Account 1 ▼] REG SUCCESS
User Name	6001
Auth ID	6001
Password	••••
Display Name	6001
Server Host	192.168.5.201
Server Port	5060
Outbound Proxy	[Disable ▼]
Expire Time	180 Seconds
Ringing Tone	[bell1 ▼] ⊙
Auto Answer	[Answer Immediatly ▼]
Incoming Notify	☑
Http URL	http://192.168.5.201:9391/action?zone=3000&operation=st
Answer Notify	☑
Http URL	http://192.168.5.201:9391/action?zone=3000&operation=st
	[Save]

SIP Advanced

SIP Protocol [UDP ▼]

- UDP
- TCP
- TLS

[Save]

2.5 Audio

From this page, you can choose which audio codecs to use for compatibility with your application, as well as some basic volume and amplification settings for both the speaker and microphone (on certain models). Other options include:

Jitter Buffer: Adjust this value if the audio stream seems unstable
Amp Auto OFF: Default value is ON. Toggle this if there seems to be noise present in the audio
HPF: High Pass Filter
NR: Noise Reduction
AEC: Automatic Echo Cancellation
AGC: Automatic Gain Control

Codec

Codec Setting	☑ OPUS
	☑ G.722
	☑ G.711U
	☑ G.711A

Speaker

Volume (0-100)	26
Amp Auto OFF	YES
Jitter Buffer (60 - 2000)	360 ms
HPF	☐
NR	☐

MIC

Gain	None
Volume (0-100)	80
AEC	☑
AGC	☑
AGC Gain Level	High
HPF	☐
NR	☑
NR Level	1

System File

#	Name		
1	bell1	⊙	◁
2	bell2	⊙	◁
3	bell3	⊙	◁
4	bell4	⊙	◁
5	bell5	⊙	◁

User File   (3732KB free)

#	Name	File					
1	userfile1	userfile0.mp3	Choose File No	⊙	⊙	◁	🗑
2	userfile2	userfile1.wav	Choose File No	⊙	⊙	◁	🗑
3	userfile3		Choose File No	⊙			
4	userfile4		Choose File No	⊙			
5	userfile5		Choose File No	⊙			
6	userfile6		Choose File No	⊙			
7	userfile7		Choose File No	⊙			
8	userfile8		Choose File No	⊙			
9	userfile9		Choose File No	⊙			
10	userfile10		Choose File No	⊙			

2.6 Media File

By default, the IP speaker has 5 pre-recorded sounds/alarms stored in onboard memory, and you can upload up to 10 different custom sound files, as long as they are either .MP3 or .WAV format. Also, keep in mind that the total size limit for all 10 files combined needs to be under 3,732KB.

⊙   When pressed, it will upload the selected file to the IP Speaker.
⊙   When pressed, will play the selected audio file for preview through PC speakers.
◁   When pressed, this will play the selected audio file through the IP speaker itself.
🗑   Deletes audio files from IP Speaker memory

2.7 Alarm

2.7.1 Alarm In

File Enable: If enabled, the IP speaker will play selected audio files and play selected amount of times when a relay change is detected on the Alarm In connection.

SIP Enable: If enabled, when the Alarm In connection is triggered, it will allow the IP speaker to use the SIP protocol to call certain extensions based on the SIP settings.

Alarm In

File Enable	☑
Play File	bell1 ⊙
Cycle Mode	Once only
Sip Enable	☑
Sip Account	Account 1
Sip Number	6006

Save

2.7.2 Http URL

If this is enabled, the IP speaker will allow control of the playback of audio using a simple example syntax seen below.

To test this, you can open up any modern browser and type the HTTP command, replacing the IP address with the current IP address of the IP Speaker.

Http URL	
Play File Enable	✓
Example1:	http://192.168.5.199/api/play?action=start&file=bell1
Example2:	http://192.168.5.199/api/play? action=start&file=userfile1&mode=once&volume=10
Example3:	http://192.168.5.199/api/play? action=start&file=userfile1&mode=multiple&count=10&volume=20
Example4:	http://192.168.5.199/api/play? action=start&file=userfile1&mode=duration&count=10&volume=30
Example5:	http://192.168.5.199/api/play?action=stop

2.8 Schedule

By enabling and creating a schedule, you can automate some basic daily tasks, such as morning announcements or alarms for lunch or the end of the work day. You are allowed to configure up to 10 schedules.

Schedule Add/Edit	
Schedule Enable	✓
Schedule Name	class1
Start Date	2022/01/01
End Date	2099/12/31
Allowed Days	✓ Mon ✓ Tue ✓ Wed ✓ Thu ✓ Fri ✓ Sat ✓ Sun
Action Time	08:00
Action Type	Start
Play File	bell1
Cycle Mode	Multiple times
Times (1-1000)	5

Save Cancel

2.9 RTP Multicast

Up to 10 RTP Multicast addresses can be configured for receiving multicast traffic. Please note that if you are using the same IP address, the port number can not be continuous. Please see the examples below:
239.255.1.2:8000, 239.255.0.1:8001, 239.255.0.1:8002(×)
239.255.0.1:8000, 239.255.0.1:8002, 239.255.0.1:8004 (√)
• Multicast address range: 224.0.0.0-239.255.255.255.
• Ports range: 1024-65536
• You can use the IP Tool, Audio Manager, or PA System software to broadcast RTP Multicast traffic.

	RTP Multicast	
Status		
Basic	Priority	IP Address (e.g. 239.255.0.1:5004)
ONVIF	1	e.g. 239.255.0.1:8000
SIP Account	2	e.g. 239.255.0.1:8002
Audio	3	e.g. 239.255.0.1:8004
Media File	4	e.g. 239.255.0.1:8006
Alarm	5	e.g. 239.255.0.1:8008
Schedule	6	e.g. 239.255.0.1:8010
RTP Multicast	7	e.g. 239.255.0.1:8012
Firewall	8	e.g. 239.255.0.1:8014
System	9	e.g. 239.255.0.1:8016
	10	e.g. 239.255.0.1:8018

Save

2.10 Firewall

2.10.1 Firewalls Rules

Firewall Add/Edit	
Enable	✓
Name	ABC
Rule Type	IP
Protocol	UDP
Port Range	—
IP Address	
Net Mask	
Action	ACCEPT

Save Cancel

Parameter	Description
Name	A name for this rule E.g. rule1
Rule Type	Choose either rule-based IP or MAC Address
MAC Address	The format of MAC Address is XX: XX: XX: XX: XX: XX:, X means 0~9 or A~F in hex, the A~F are not case sensitive.
Protocol	When using the IP address option, you can choose from ALL (TCP/UDP), TCP only, or UDP only
Port Range	Initial port should be on the left and end port should be on the right. The port must be equal to or greater than start port. E.g. 2000 - 3000
IP Address Net Mask	By adjusting IP address and Netmask values you can choose an individual address or range of addresses E.g. 192.168.5.20 & 255.255.255.255 for IP 192.168.5.20 E.g. 192.168.5.0 & 255.255.255.0 for IP from 192.168.5.0 to 192.168.5.255
Action	Accept: Accept the access from remote hosts Drop: Drop the access from remote hosts

2.10.2 Automatic Defense Rules

Parameter	Description
Protocol	Choose from either TCP or UDP Protocol
Port Range	Initial port should be on the left and end port should be on the right. The port must be equal to or greater than start port.
Rate (1-10000)	The maximum packets can be handled per unit time. E.g.(IP:192.168.6.88/32 Protocol: UDP Rate:10/sec) means maximum 10 UDP packets from 192.168.6.88 can be handled per minute, and drop the redundant packets.

2.11 System

2.11.1 Upgrade

From this section, you can choose to Reboot the device, Reset to factory default settings, or Upgrade using a downloaded firmware update file.

Please contact our support department to check for any available firmware upgrades.

2.11.2 Security

If desired, you can change both the username and password of the main system account. You will need to provide a current valid username and password in the first two fields.

3 IPTool Configuration

Besides using a web browser to configure these settings, our IPTool for the IP speaker can change certain settings such as IP address, SIP, RTP, and Volume settings.

Please contact our support department for a download link or download the tool from our Download Center.
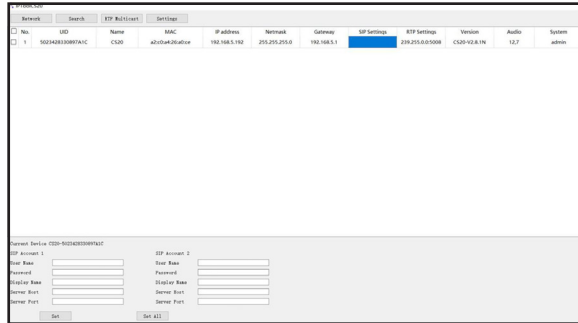
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