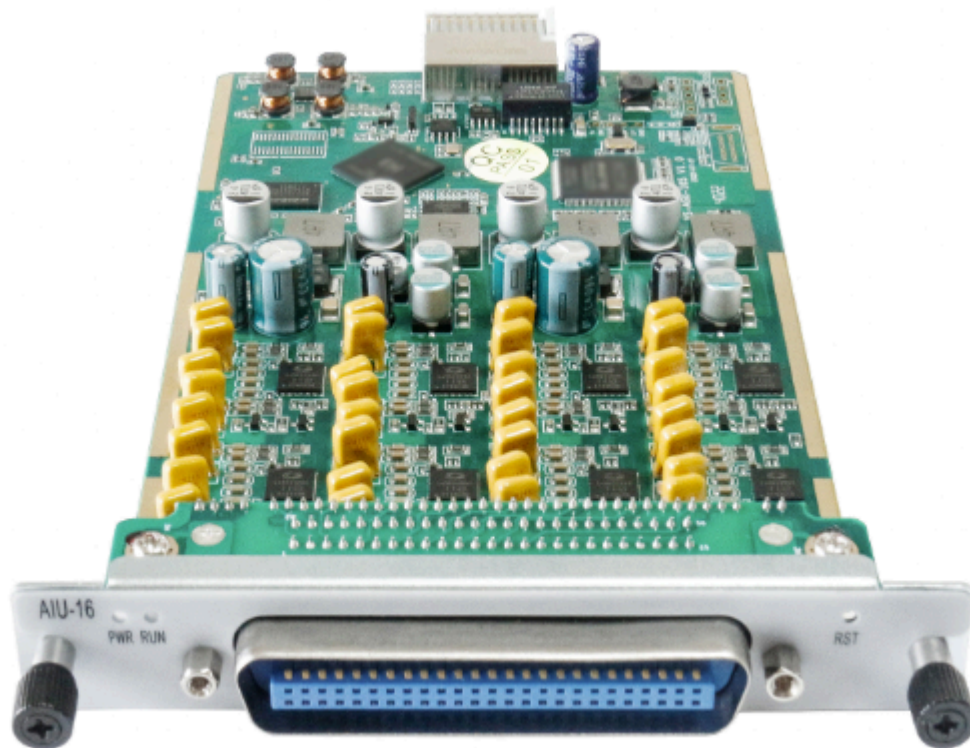


AIU-16 Analog Gateway User Manual



Version 2.0

Address: Room 624, 6/F, Tsinghua Information Port, Shukan Building, Qingxiang Road, Longhua Street, Longhua District, Shenzhen 518109

Tel: +86-755-66630978, 82535461, 82535362

Sales: sales@openvoxtech.com

Technical Support: support@openvoxtech.com

Business Hours: Monday to Friday, 09:00-18:00 (GMT+8), excluding holidays

Thank you for choosing OpenVox products.

Statement

The copyright of this document belongs to Shenzhen OpenVox Communication Co., Ltd. (OpenVox). Without permission, images and text in this document may not be copied or reproduced for commercial use. Shenzhen OpenVox Communication Co., Ltd. reserves all rights of interpretation. For details, contact OpenVox sales or technical support.

Revision History

Version	Release Date	Description
2.0	25/5/2026	Full update

Document Information

- Product: AIU-16
- Document Type: User Manual

- Interface Type: 16 FXS ports

Product Overview

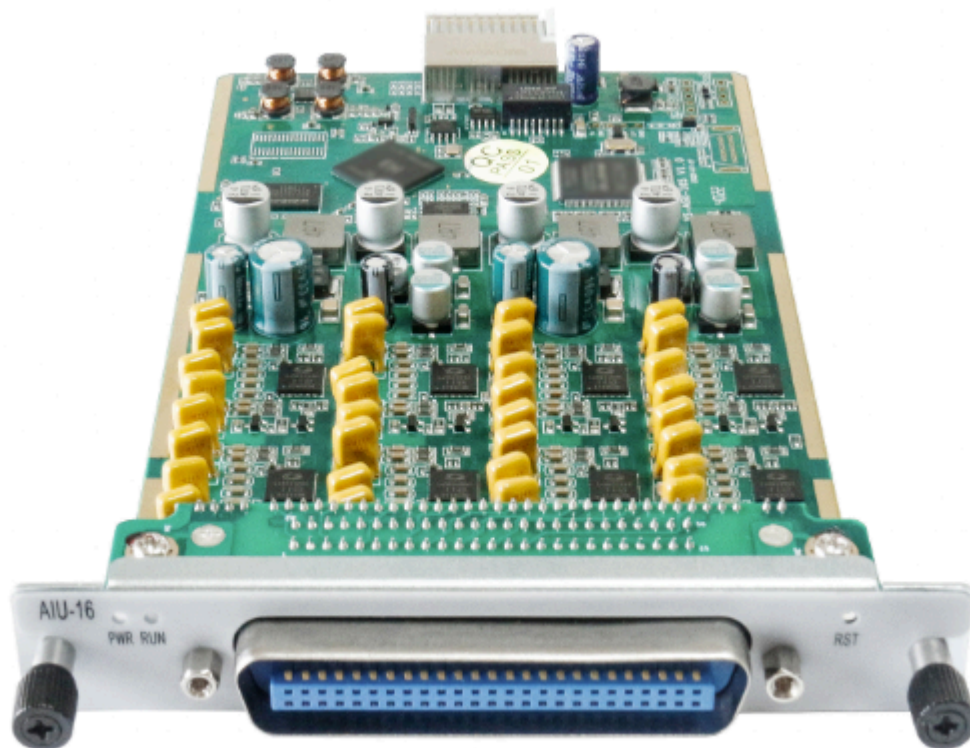
AIU-16 is an analog VoIP gateway for SMB and SOHO scenarios. It provides 16 FXS ports, enables stable interconnection among IPPBXs, fax machines, analog phones, and carrier networks, and supports concurrent voice and fax processing.

1. Overview

1.1 Product Introduction

The AIU-16 analog gateway module is used with OpenVox UCP1600/2120/4131 series products to connect VoIP and PSTN access. The AIU-16 module provides 16 FXS analog telephone channels. It supports multiple codecs, including G.711A/U, G.723.1, G.729A, G.722, iLBC, OPUS, AMR, and AMR-WBC. For software interconnection, the AIU-16 analog gateway module uses the standard SIP protocol, is compatible with mainstream IPPBXs and SIP servers, and supports most VoIP operating platforms, such as Asterisk, Issabel, 3CX, FreeSWITCH, BroadSoft, and VOS.

1.2 Product Appearance



1.3 Software Features

	AIU-16
Telephone Ports	16 FXS channels
Accounts and Templates	16 SIP accounts and four templates

	AIU-16
Voice Codecs	G.711A/U, G.723.1, G.729A, G.722, iLBC, OPUS, AMR, and AMR-WB
Fax	T.38 compliant Group 3 fax relay up to 14.4 kbps, with automatic fallback to G.711 for fax transmission. T.38 fax relay uses V.17, V.21, V.27ter, and V.29 fax data pumps.
QoS	DiffServ, ToS, 802.1p/Q VLAN tagging
Telephony Features	Caller ID display or blocking, call waiting, blind transfer and attended transfer, call forwarding, DND, callback, paging, message waiting indicator and interval tone, auto dialing, and flexible dialing rules
DTMF Mode	Flexible DTMF transmission modes, user audio interface, RFC2833 and/or SIP INFO
SIP Signaling	SIP (RFC 3261) over UDP/TCP/TLS
Security	SRTP/TLS/SIPS, HTTPS, 802.1x
Upgrade and Provisioning	TFTP, HTTP, HTTPS
Network Protocols	TCP/UDP, RTP/RTCP, HTTP/HTTPS, ARP, ICMP, DNS, DHCP, NTP, TFTP, PPPoE, STUN

1.4 Hardware Features

	AIU-16
Port Type	RJ11
Weight	189 g
Dimensions	160 x 100 mm
Maximum Power	12 W
Operating Temperature Range	0°C to 50°C
Storage Humidity Range	10% to 90%, non-condensing
Storage Temperature Range	-20°C to 70°C
Certification	CE

1.5 Software Information

Default IP: 192.168.6.65

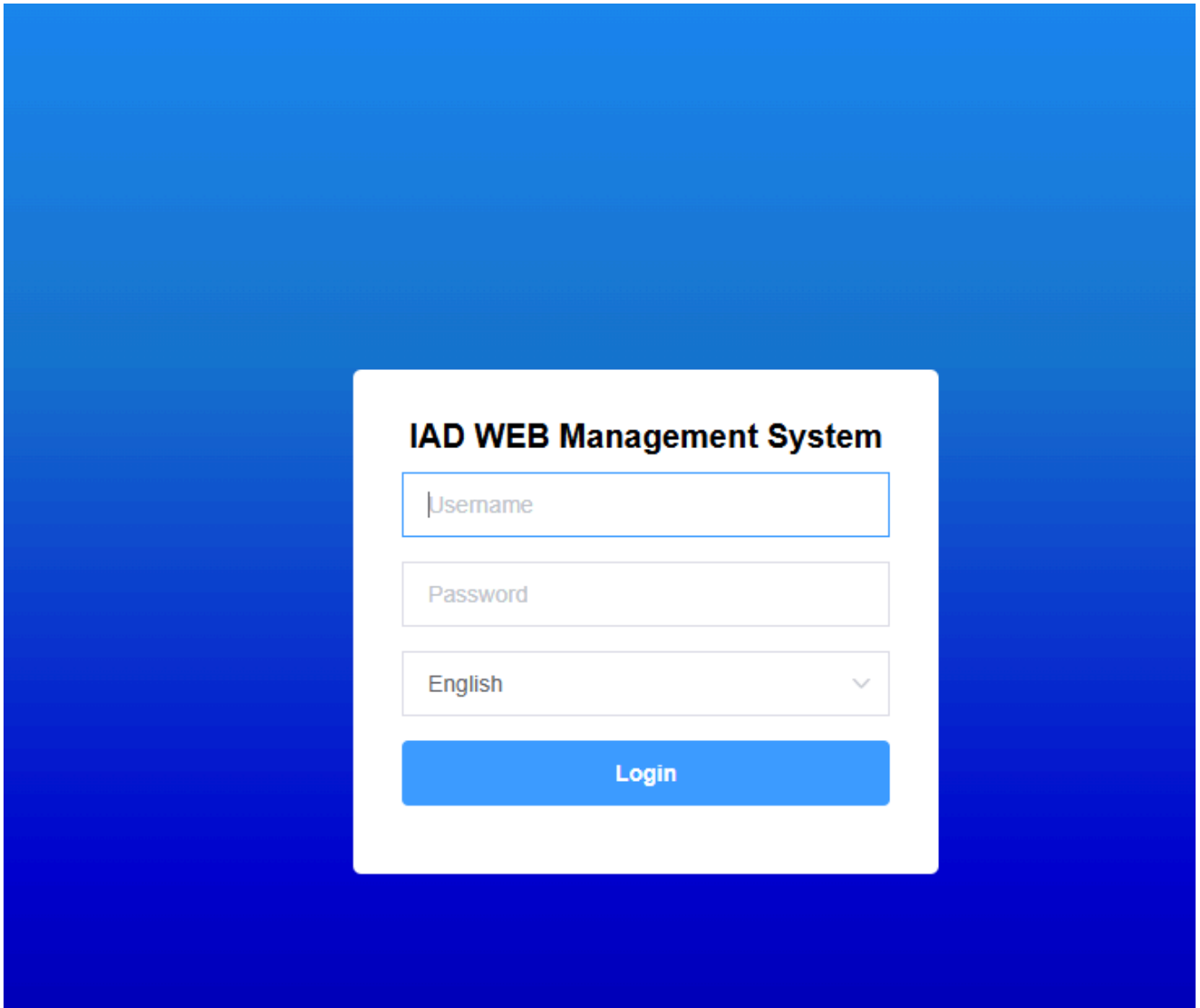
Username: admin

Password: admin

Connect the network cable to LAN1/LAN2, enter the default IP address in a browser, and log in to the gateway for configuration.

Note: The default network mode of this product is bridge mode. The IP address is the same whether the network cable is connected to the WAN port or the LAN port.

Figure 1-5-1 Login Page



2. Status

2.1 System Status

The System Status page displays product information, firmware information, system time, and resource usage.

Figure 2-1-1 System Status Display

System Information

Product Information

Product Name:	OpenVox IAD Series
Product Model:	GWM801
Serial Number:	GW80HJ0Q4G5E
Slot Number:	2
Manufacturer:	OpenVox
Manufacturer Website:	www.openvoxtech.com

Firmware Information

Firmware Version:	2.2.9-4
Build Number:	r0-f592762c
MAC Address:	A0:98:05:1A:10:5E

System Time

Uptime:	59 Days 3 Hours 59 Minutes 57 Seconds
System Time:	2026/5/21 14:38:18

Resource Usage

2.2 Network Status

The Network Status page displays network status and VPN connection status.

Figure 2-2-1 Network Status

Network Status

WAN

Network Type:	Static IP
IP Address:	172.16.6.28
Subnet Mask:	255.255.255.0
Gateway:	172.16.6.1
DNS:	172.16.188.5
MAC Address:	a0:98:05:1a:10:5e

MGT

Network Status:	Disabled
------------------------	----------

VPN

Connection State:	Disabled
--------------------------	----------

2.3 Port Status

The Port Status page displays port type, enable status, registration status, and hook status. Click the slot number drop-down list to switch between interface boards. You can check the status of FXS according to the optional port.

Figure 2-3-1 FXS Port Status, You can adjust the mouse wheel to check the status of the FXS interface

Port Status

Port Number	Port Type	SIP Account	Enabled	Model	Group Number	Voltage	Register	Status
1	FXS	4001	Yes	S2	4	47	Unknown	on hook
2	FXS	4002	Yes	S2	4	47	Unknown	on hook
3	FXS		Yes	S2		47	Unknown	on hook
4	FXS		Yes	S2		47	Unknown	on hook

2.4 CDR

On the CDR page, users can configure CDR settings and query CDR records.

Figure 2-4-1 CDR

CDR

CDR Settings

Enable CDR: No Yes

Call Status:

Save Quantity:

CDR Query

Quantity:

Port:

Caller:

Callee:

Status:

Total 0 < 1 >

Port(Group)	Calling Number	Called Number	Call Status	Invoke Start Time	Call Start Time	End Call Time	Call Duration
Note: Local CDR will only be saved in memory and will be cleared by rebooting							

Note: CDR records are stored only in memory and will be cleared after reboot.

Table 2-4-1 CDR Options

Option	Description
Enable CDR	Select whether to enable CDR.
Call Status	Select the call status saved in CDR.
Save Quantity	Set the number of CDR entries to save.
Slot Number	Select the slot number for CDR queries.
Quantity	Select the number of CDR records to query.

Option	Description
Port	Select the port for CDR queries.
Caller	Filter CDR query items by caller number.
Callee	Filter CDR query items by callee number.

2.5 Call Feature Status

The Call Feature Status page displays the DND enable status, unconditional forwarding status, and busy forwarding status. Click the slot number drop-down list to switch between interface boards.

Figure 2-5-1 Call Feature Status Interface

Call Features Status

Port	Do Not Disturb	Unconditional Transfer	Busy Transfer	Unresponsive Transfer
FXS 1	Disabled			
FXS 2	Disabled			
FXS 3	Disabled			
FXS 4	Disabled			

3. Network Settings

3.1 Local Network

Figure 3-1-1 Local Network Interface

Local Network Save Undo

Local Network MGT Settings VLAN Settings Local DNS

WAN Settings

Enable IPv6 Address: No Yes

Network Type: Static IP

IP Address: 172.16.6.28

Subnet Mask: 255.255.255.0

Default Gateway: 172.16.6.1

Primary DNS: 172.16.188.5

Secondary DNS:

Manage Access: Both WAN And MGT Interfaces

Set OPT 60: iad

MTU: 1500

Table 3-1-1 WAN Settings Parameter Description

Option	Description
Network Mode	Select the device network mode.
Network Type	Select the network type: DHCP, Static IP, or PPPoE.
IP Address	Set the IP address of the device.

Option	Description
Subnet Mask	Set the subnet mask of the device.
Default Gateway	Set the default gateway of the device.
Primary DNS	Set the primary DNS of the device.
Secondary DNS	Set the secondary DNS of the device.
Management Access Options	Set web login restrictions.
Set OPT 60	Set OPT 60.
Option	Description
IP Address	Set the IP address of the LAN port.
Subnet Mask	Set the subnet mask of the LAN port.

Figure 3-1-2 Management Network Port Settings Interface

Table 3-1-2 Management Network Port Settings Parameter Description

Option	Description
Disable	Select whether to enable the management network port.
Network Type	Select the network type: DHCP, Static IP, or PPPoE.
IP Address	Set the IP address of the device.
Subnet Mask	Set the subnet mask of the device.
Gateway	Set the gateway of the device.
Remote DNS	Select whether to allow remote DNS.
DNS	Set the DNS of the device.

Figure 3-1-3 VLAN Settings Interface

Local Network Save Undo

Local Network MGT Settings VLAN Settings Local DNS

Layer 2 QoS 802.1Q/VLAN Tag for WAN:

Layer 2 QoS 802.1p Priority for SIP signaling:

Layer 2 QoS 802.1p Priority for RTP media:

Layer 2 QoS 802.1Q/VLAN Tag for MGT:

Layer 2 QoS 802.1p Priority for MGT:

PVID:

Table 3-1-3 VLAN Settings Parameter Description

Option	Description
Layer 2 QoS 802.1Q/VLAN Tag on WAN Port	Set the WAN port tag.
Layer 2 SIP Signaling QoS 802.1p Priority	Set the SIP signaling priority.
Layer 2 Voice QoS 802.1p Priority	Set the voice priority.
Layer 2 QoS 802.1Q/VLAN Tag on Management Port	Set the management port tag.
Layer 2 QoS 802.1p Priority on Management Port	Set the management port priority.

Figure 3-1-4 Local DNS Settings Interface

Local Network Add Save

Local Network MGT Settings VLAN Settings Local DNS

Record	Domain	IP	Port	Priority	Weight	Action
No Data Available						

Figure 3-1-5 Add Local DNS Settings Interface

Local Network Back Save

Local Network MGT Settings VLAN Settings Local DNS

Record:

Domain:

IP:

Table 3-1-4 Local DNS Parameter Description

Option	Description
Domain Name	Set the device domain name.
Resolved IP	Set the IP address to be resolved.

3.3 Static Route

On the "Static Route" page, static route network interface, target IP address, subnet mask, gateway, hop count, and operations are displayed. Static routes can be added here. Click the Add button to add a static route.

Figure 3-3-1 Static Route Interface

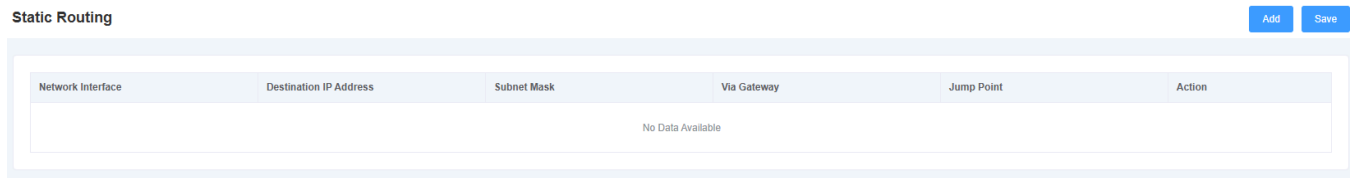
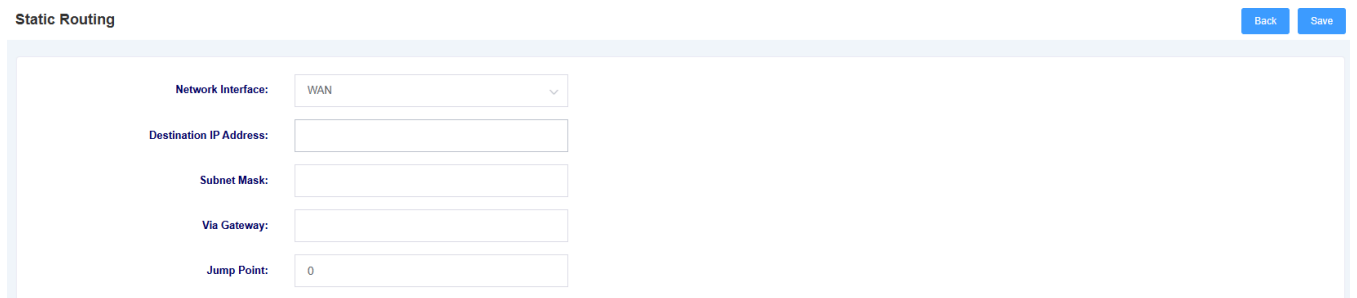


Figure 3-3-2 Add Static Route Interface



3.4 Firewall

On the "Firewall" page, firewall rule names, protocols, source network domain, source IP, source port, target network domain, target IP, target port, and rule actions are displayed. Firewall rules can be added here to ensure device security. Click the Delete button to delete firewall rules or the Add button to add firewall rules.

Figure 3-4-1 Firewall Interface

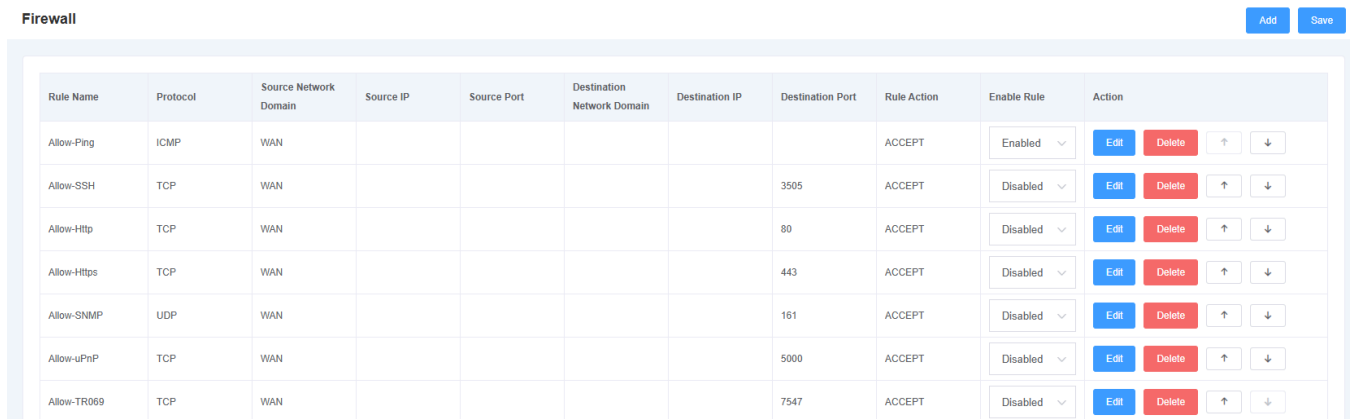


Figure 3-4-2 Add Firewall Rule Interface

Rule Name:	<input type="text"/>
Protocol:	TCP
Source Network Domain:	None
Source IP:	<input type="text"/>
Source Port:	1-65536
Destination Network Domain:	None
Destination IP:	<input type="text"/>
Destination Port:	1-65536
Rule Action:	ACCEPT
Enable Rule:	Enabled
ICMP Type:	Select

Table 3-4-1 Add Firewall Rule Parameters

Option	Description
Name	Firewall rule name
Protocol	Protocol specified by firewall rule
Source Network Domain	Source network domain of firewall rule
Option	Description
Source IP	Source IP defined by firewall rule; if left empty, applies to all IPs
Source Port	Define source port, range 1-65535
Target Network Domain	Target network domain of firewall rule
Target IP	Target IP defined by firewall rule; if left empty, applies to all IPs
Target Port	Define target port, range 1-65535
Rule Action	Define rule action, options: ACCEPT, REJECT, DROP

3.5 IP Alias

The AIU-8 supports setting multiple IP addresses and can be configured in the IP Alias interface.

Figure 3-5-1 IP Alias Interface

The screenshot shows a configuration page for IP Aliases. At the top right, there are 'Save' and 'Undo' buttons. The main content area is divided into two sections: 'IP Alias 1' and 'IP Alias 2'. Each section contains two input fields: 'IP Address' and 'Subnet Mask'.

3.6 VPN Settings

On this interface, VPN can be enabled and configured. The AIU-8 currently only supports OpenVPN.

Figure 3-6-1 VPN Settings Interface

The screenshot shows the 'VPN Settings' configuration page. At the top right, there are 'Save' and 'Undo' buttons. Below the title bar, there are 'Settings' and 'Log' tabs. The main configuration area includes:

- VPN Type:** A dropdown menu currently set to 'OPENVPN'.
- Account Authentication Name:** An empty text input field.
- Account Authentication Password:** An empty text input field.
- Certification Authentication Password:** An empty text input field.
- OpenVPN Configuration Content:** A file upload field with a 'Choose File' button.
- Connection State:** A status indicator showing 'Disconnected' in red text.

Table 3-6-1 VPN Settings Description

Option	Description
VPN Type	Can choose to disable VPN or use OpenVPN
Account Authentication Name	Authentication name used by OpenVPN
Account Authentication Password	Authentication password used by OpenVPN
Cert Authentication Password	Cert authentication password
OVPN Configuration Content	Upload OpenVPN configuration file
Connection Status	Show VPN connection status

On the Log page, you can select the number of log lines to display and then click the Query button. The logs will be displayed in the "Log Results" box.

Figure 3-6-2 VPN Log Interface

Number Of Log Lines:

Log Results:

4. Templates

The iAG200 provides a convenient SIP registration method. Users can easily apply pre-configured templates to FXS ports. A total of 2/4 templates are available for configuration.

4.1 SIP Settings

Figure 4-1-1 SIP Settings

The screenshot shows the 'SIP Settings' configuration page for 'Profile 1'. At the top right, there are 'Save' and 'Undo' buttons. Below the profile name, there are navigation tabs: 'SIP Settings', 'Digitmap Settings', 'VOIP Settings', 'Analog Settings', 'IP->Tel Route', and 'Tel->IP Route'. The 'SIP Settings' tab is active. Under the 'Basic Settings' section, the following parameters are visible:

- SIP Primary Server:** An empty text input field.
- SIP Primary Server Port:** A text input field containing '5060'.
- SIP Backup Server:** An empty text input field.
- SIP Backup Server Port:** A text input field containing '5060'.
- SIP Address Selection:** A dropdown menu with 'Default' selected.
- DNS Mode:** A dropdown menu with 'Auto Identification' selected.
- Outgoing Proxy Server:** An empty text input field.
- Backup Outgoing Proxy Server:** An empty text input field.
- From Domain:** An empty text input field.
- Stun:** Radio buttons for 'No' (selected) and 'Yes'.
- Enable Compatibility:** Radio buttons for 'No' (selected) and 'Yes'.

Table 4-1-1 SIP Settings Parameters

Option	Description
SIP Primary Server	Set SIP primary server
SIP Primary Server Port	Set SIP primary server port
SIP Backup Server	Set SIP backup server
Option	Description
SIP Backup Server Port	Set SIP backup server port
SIP Address Selection	Select which network port SIP service registers on
DNS Mode	Set DNS mode, optional Auto or DNSSRV
Outbound Proxy Server	Set outbound proxy server. The gateway will send signaling to this external proxy instead of directly to the peer.

From Domain	Set domain name for peer verification
STUN	Select whether to enable STUN service
Compatibility Mode	Select whether to enable compatibility mode

Figure 4-1-2 SIP Settings

The screenshot shows the 'SIP Settings' configuration page for 'Profile 1'. The page is divided into three main sections: Registration Settings, Heartbeat Settings, and RTP Encryption. The Registration Settings section includes fields for SIP Transmission Mode (set to UDP), Authentication Domain (set to *), Registration Validity Period (120), Registration Failure Retry Interval (30), Retry Interval After 403 (30), Retry Interval After Permanent Failure (30), and Registration Failure Retry Times (2147483647). The Heartbeat Settings section includes a radio button for 'Disable Qualify Verification' (set to Yes), SIP Heartbeat Sending Frequency (0), and SIP Heartbeat Timeout (60). The RTP Encryption section includes a dropdown for RTP Encryption Mode (set to Disabled). The page also features a 'Save' button and an 'Undo' button in the top right corner.

Table 4-1-2 SIP Settings Parameters

Option	Description
SIP Transport Method	Set SIP transport method, optional UDP, TCP, and TLS
Authentication Domain	Set SIP registration authentication domain
Option	Description
Registration Validity Period	Set registration validity period, default 3600 seconds
Registration Failure Retry Interval	Set registration failure retry interval, default 30 seconds
Registration Failure Retry Count	Set registration failure retry count, default 10 times
Qualify Verification	Whether to enable qualify verification
SIP Heartbeat Send Frequency	Set SIP heartbeat packet send frequency
SIP Heartbeat Timeout Time	Set SIP heartbeat packet timeout time
RTP Encryption Mode	Whether to enable RTP encryption

Figure 4-1-3 SIP Settings

Certificate Settings

Version:

URI Pattern:

Select The PEM Certificate:

Select The CA Certificate Chain: No Yes

UAC Verifies Paired-end Certificate: No Yes

UAS Verifies Paired-end Certificate: No Yes

Option	Description
Version	Select certificate version. Device supports different versions of TLS, SSL, SS certificates
URI Mode	Select URI mode, supporting SIP and SIPS
Select Device PEM Certificate	Select device PEM certificate
Select CA Certificate Chain	Select whether to enable CA certificate chain
Option	Description
UAC Verify Peer Certificate	As the calling party, select UAC to use telephone as refresher. Or select UAS to use callee or proxy server as refresher.
UAS Verify Peer Certificate	As the called party, select UAC to use callee or proxy server as refresher, or select UAS to use telephone as refresher.

4.2 Dial Plan Settings

On this page, dial rules and function key settings can be configured.

Figure 4-2-1 Dial Plan Settings

Profile 1 [Save](#) [Undo](#)

SIP Settings [Digitmap Settings](#) VOIP Settings Analog Settings IP->Tel Route Tel->IP Route

Digitmap Settings

Digitmap Priority:

Fuzzy Match: No Yes

Use # as Send Key: No Yes

Dialing Rules:

Number Transformation

[Add](#)

Matches Callee Prefix	Delete Callee Prefix Len	Delete Callee Suffix Len	Add Callee Prefix	Add Callee Suffix	Action
No Data					

Table 4-2-1 Dial Plan Settings Parameters

Option	Description
Dial Plan Model	Select whether dial plan is local-first or remote dial plan. If using Openvox IPPBX, you can use remote dial plan to prioritize IPPBX dial rules
Fuzzy Matching	Select whether to enable fuzzy matching
Use # as Send Key	After enabling, pressing # after dialing will send the dialed number
Dial Rules	<p>1. If no dial plan is configured, the soft switch server's dial plan will be used. 2. Valid characters include: 0-9, x, . 3. X represents matching any single digit 0-9. 4. . represents matching any number of the preceding digit (total not exceeding 32 bits). 5. . can only appear once and only at the end. 6. Even with variable-length dial plan configured, you can press # to dial quickly. 7. Configure multiple dial rules separated by commas</p>

Figure 4-2-2 Function Key Settings

Profile 1
Save Undo

SIP Settings
Digitmap Settings
VOIP Settings
Analog Settings
IP->Tel Route
Tel->IP Route

Function Key Settings

Query WAN IP:

Query LAN IP:

Query MGT IP:

Query Channel Number:

Query Local Number:

All Function Key: No Yes

Do Not Disturb: No Yes

Enable Do Not Disturb:

Disable Do Not Disturb:

Unconditional Call Transfer: No Yes

Enable Unconditional Call Transfer:

Cancel Unconditional Call Transfer:

Enable Unconditional Call Transfer:

Cancel Unconditional Call Transfer:

Transfer A Call On Busy: No Yes

Enable Call Transfer On Busy:

Cancel Call Transfer On Busy:

Call Transfer On No Reply: No Yes

Enable Call Transfer On No Reply:

Cancel The Call Transfer On No Reply:

Table 4-2-2 Function Key Settings Parameters

Option	Description
Query IP	Set function key to query IP. After dialing, the device IP will be announced
Query Channel Number	Set function key to query channel number. After dialing, the channel number will be announced
Query Local Number	Set function key to query local number. After dialing, the local number will be announced
All Function Keys	Select to enable or disable function keys
Do Not Disturb	Select to enable or disable do not disturb function
Enable Do Not Disturb	Set function key to enable do not disturb. After dialing, do not disturb will be enabled on this extension

Disable Do Not Disturb	Set function key to disable do not disturb. After dialing, do not disturb will be disabled on this extension
Unconditional Call Forwarding	Select to enable or disable unconditional call forwarding function
Enable Unconditional Call Forwarding	Set function key to enable unconditional call forwarding. After dialing this key plus the forwarding extension, unconditional call forwarding will be enabled on this extension
Disable Unconditional Call Forwarding	Set function key to disable unconditional call forwarding. After dialing, unconditional call forwarding will be disabled on this extension
Call Forwarding on Busy	Select to enable or disable call forwarding on busy function
Enable Call Forwarding on Busy	Set function key to enable call forwarding on busy. After dialing this key plus the forwarding extension, call forwarding on busy will be enabled on this extension
Disable Call Forwarding on Busy	Set function key to disable call forwarding on busy. After dialing, call forwarding on busy will be disabled on this extension
Call Forwarding on No Answer	Select to enable or disable call forwarding on no answer function
Enable Call Forwarding on No Answer	Set function key to enable call forwarding on no answer. After dialing this key plus the forwarding extension, call forwarding on no answer will be enabled on this extension
Disable Call Forwarding on No Answer	Set function key to disable call forwarding on no answer. After dialing, call forwarding on no answer will be disabled on this extension

4.3 VOIP Settings

On this interface, users can configure VOIP-related parameters.

Figure 4-3-1 VOIP Settings

Profile 1
Save Undo

SIP Settings
Digitmap Settings
VOIP Settings
Analog Settings
IP->Tel Route
Tel->IP Route

Call Settings

Disable Call Forwarding: No Yes

RTP Keepalive Transmission Interval (s):

Call RTP Timeout Duration (s):

Call Hold RTP Timeout (s):

DTMF Settings

DTMF Mode:

Table 4-3-1 VOIP Settings Parameters

Option	Description
Allow Call Transfer	Select whether to enable call transfer
RTP Keep-Alive Send Interval	Set RTP keep-alive send interval
Call RTP Timeout Time	Set call RTP timeout time
Call Hold RTP Timeout Time	Set call hold RTP timeout time
DTMF Mode	Set DTMF mode, options: RFC4733, inband, info, auto, and auto_info

Figure 4-3-2 VOIP Settings

Table 4-3-2 VOIP Settings Parameters

Option	Description
Use Codec Packing Duration	Select whether to use codec packing duration for more efficient bandwidth and resource utilization in transmission, storage, and processing
Codec Priority	Set codec priority
Enable UDPTL	Select whether to enable UDPTL
UDPTL Error Correction	Select UDPTL error correction method

4.4 Analog Settings

Profile 1 Save Undo

SIP Settings Digitmap Settings VOIP Settings Analog Settings IP->Tel Route Tel->IP Route

TX Gain (dB):

RX Gain (dB):

Echo Cancellation (ms):

Polarity Reversal For Answer: No Yes

Polarity Reversal For Hangup: No Yes

Caller ID Sending Method:

Enable MWI: No Yes

Own Number Sending Method:

MWI Activation Method:

Enable MWI Subscription: No Yes

MWI Subscription Timeout (s):

Enable MWI Indicate: No Yes

Table 4-4-1 Analog Settings Parameters

Option	Description
TX Gain	Set sending voice gain
RX Gain	Set receiving voice gain
Echo Cancellation	Select whether to enable echo cancellation and the milliseconds to enable
Polarity Reversal Indicates Answer	Select whether to enable polarity reversal to indicate answer
Polarity Reversal Indicates Hangup	Select whether to enable polarity reversal to indicate hangup
Caller ID Sending Method	Select caller ID sending method
Enable MWI Subscription and Local Number Display	Set whether to enable MWI subscription and local number display. When enabled, the local number will be displayed on the phone screen when on-hook
Local Number Display Method	Select local number display method
Message Waiting Indicator Light Method	Select message waiting indicator light method

5. FXS Port Settings

On this page, You can set the FXS port

5.1 FXS port settings

Figure 5-1-1 Basic Settings

Port	SIP User ID	Authentication ID	Password	Username	Profiles	Enable Port	Enable Registration	Group ID
					1	Yes	Yes	4-63
FXS 1					1	Yes	Yes	4-63
FXS 2					1	Yes	Yes	4-63

Table 5-1-1 Basic Settings Parameters

Option	Description
SIP User ID	Set SIP user ID corresponding to this FXS port
Authentication ID	Set authentication ID corresponding to this SIP user ID
Password	Set password corresponding to authentication ID
Username	Set caller display name
Template	Select template to use
Enable Port	Select whether to enable this port
Enable Registration	Select whether to enable registration

Figure 5-1-2 Call Settings

Port	Hotline Number	Hotline Delay (s)	Call Waiting	FLASH ATT Transfer	Call Hold	Three-Way Calling	Do Not Disturb	Unconditional Transfer	Busy Transfer	Unresponsive Transfer
		1	Enabled	Enabled	Enabled	Enabled	Disabled			
FXS 1		1	Enabled	Enabled	Enabled	Enabled	Disabled			
FXS 2		1	Enabled	Enabled	Enabled	Enabled	Disabled			

Table 5-1-2 Call Settings Parameters

Option	Description
Hotline Number	
Hotline Delay (s)	
Call Waiting	
FLASH ATT Transfer	
Call Hold	
Three-Way Calling	
Do Not Disturb	
Unconditional Transfer	
Busy Transfer	
Unresponsive Transfer	

Hotline Number	Set hotline number for the port. If no number is dialed within the hotline delay time after picking up, the hotline number will be dialed automatically
Hotline Delay	Set hotline delay
Call Waiting	Select whether to enable call waiting
Call Transfer	Select whether to enable call transfer
Call Hold	Select whether to enable call hold
Three-Way Call	Select whether to enable three-way call
Do Not Disturb	Select whether to enable do not disturb
Unconditional Transfer	Set unconditional transfer number
Transfer on Busy	Set transfer on busy number
Transfer on No Answer	Set transfer on no answer number

Figure 5-1-3 Advanced Settings

FXS Port Settings Save Undo

<input type="checkbox"/>	Port	FORCE FROM Account	CID Format	CID Type	Use P-Asserted-Identity Header Field	Use Remote-Party-ID Header Field	Use User=Phone Header Field	Use TEL Header Field	Use P-Access-Network-Info Header Field	Use P-Emergency-Info Header Field
<input type="checkbox"/>		<input type="text"/>	Display Name A ▾	BELL ▾	No ▾	No ▾	No ▾	No ▾	No ▾	No ▾
<input type="checkbox"/>	FXS 1	<input type="text"/>	Display Name A ▾	BELL ▾	No ▾	No ▾	No ▾	No ▾	No ▾	No ▾
<input type="checkbox"/>	FXS 2	<input type="text"/>	Display Name A ▾	BELL ▾	No ▾	No ▾	No ▾	No ▾	No ▾	No ▾

Table 5-1-3 Call Settings Parameters

Option	Description
FROM Force User	Set FROM force user
CID Message Signal	Set CID message signal
Use P-Asserted-Identity Header	Carry "P-Preferred-Identify" in INVITE. In anonymous calls, user identity can be indicated through P-Preferred-Identify header
Use Remote Party ID Header	Use Remote Party ID header to obtain CID
Use User=Phone Header	Carry "user=phone" in URI. When calling to PSTN network, extract called number from username

Use P-Accessed-Network-Info Header	Use P-Accessed-Network-Info header to obtain CID
Use P-Emergency-Info Header	Use P-Emergency-Info header to obtain CID

6. Advanced Configuration

6.1 Fax Parameters

On this page, fax-related parameters can be configured.

Figure 6-1-1 Fax Parameters

Table 6-1-1 Fax Parameters

Option	Description
Modem Type	Set supported modem type
Maximum Speed	Select maximum fax speed supported
Minimum Speed	Select minimum fax speed supported
Error Verification	Select whether to enable error verification
Bidirectional Negotiation	Select whether to enable bidirectional negotiation
Fax Tone Detection Duration	Set fax tone detection duration

6.2 QoS Settings

On this interface, RTP voice packet ToS and SIP signaling packet ToS can be set.

Figure 6-2-1 QoS Settings Interface

RTP Voice Packet TOS:

SIP Signaling Packet TOS:

6.3 Analog Settings

On this interface, analog line-related parameters can be set, such as echo cancellation and jitter buffer.

Figure 6-3-1 Analog Settings Interface

General

Force Alaw:

Line Impedance:

FXS Impedance Mode:

Disable High Voltage Ringing: No Yes

Ring Frequency:

Message Lamp Voltage:

MWI Frequency (Hz):

Line Region:

Audio Language:

Remote Transfer: No Yes

Ports Signaling:

Open Switching Interval (ms):

FXO HW-RXGAIN:

Table 6-3-1 Analog Settings Parameters

Option	Description
Force alaw	Select whether to enable this option. When enabled, alaw will be enforced
Line Impedance	Select line impedance
FXS Impedance Mode	Select FXS impedance mode
High Voltage Ringing	Select whether to enable high voltage ringing
Ring Frequency	Select ringing frequency
Line Area	Select area where the line is located
Audio Language	Select language for voice prompts
Remote Transfer	Select whether to enable remote transfer function

Signaling	Select KEWLSTART / LOOPSTART protocol
Feeding Disconnect Duration (milliseconds)	Select disconnect duration
FXO Hardware RX	Select the level/gain and direction of voice signals received by this port from the remote line entering this device (receive path)
FXO Hardware TX	Select the level/gain and direction of voice signals sent by this device to the remote line (transmit path)

Figure 6-3-2 Analog Settings Interface

The screenshot shows the 'Analog Settings' interface with the following sections and parameters:

- DTMF**
 - DTMF To Total Energy: 35
 - DTMF Gsize: 120
 - DTMF Threshold: 80000000
- JitterBuffer**
 - Enable Jitter Buffer: No Yes
 - Jitter Buffer Mode: Static Buffer
 - Jitter Sync Timestamp (ms): 1000
 - Jitter Max Buffer (ms): 200
- FXS Settings**
 - Min Flash Hook Duration (ms): 40
 - Max Flash Hook Duration (ms): 1250
 - Dial Tone Timeout (ms): 10000
 - Interdigit Dial Timeout (ms): 6000
 - Enable Pulse Dialing: No Yes

Table 6-3-2 Analog Settings Parameters

Option	Description
Total Energy Ratio Coefficient	Adjust energy ratio coefficient
Samples Per Detection Segment	Set number of samples
Energy Threshold	Set energy threshold
Jitter Buffer	Select whether to enable jitter buffer
Jitter Buffer Method	Select jitter buffer method
Jitter Synchronization Timestamp	Set jitter synchronization timestamp
Jitter Maximum Buffer	Set jitter maximum buffer
Option	Description

Minimum Hook Flash Duration	Set minimum hook flash duration
Maximum Hook Flash Duration	Set maximum hook flash duration
First Digit Timeout	Set first digit timeout time
Inter-Digit Timeout	Set inter-digit timeout time
Dial Matching Timeout	Set dial matching timeout time
Pulse Dialing	Select whether to enable pulse dialing
Maximum Pulse Duration	Set maximum pulse duration
Hangup Detection Duration	Set hangup detection duration

Figure 6-3-3 Analog Settings Interface

FXO Settings

Inbound Delay:

Inbound Answer: No Yes

INVITE Provisional Response 180: No Yes

Enable Pulse Dial-up: No Yes

Hangup Detection (ms):

Hangup Dial Tone Detection (ms):

Off-hook Dial Tone Detection (ms):

Busy Tone Detection Count:

Busy Tone Detection Pattern:

Caller ID Signal Type:

Caller ID Start Mode:

Option	Description
Call In Delay	Set FXO incoming call answer delay before connecting
Call In Auto Answer	Whether to auto answer on incoming call
INVITE Provisional Answer 180	Whether to send 180 Ringing
Enable Pulse Dialing	Whether to allow pulse dialing
Hangup Detection (milliseconds)	Hangup voltage/current drop detection duration
Hangup Dial Tone Detection (milliseconds)	Duration for determining hangup through dial tone
Off-Hook Dial Tone Detection (milliseconds)	Timeout for detecting dial tone after off-hook
Busy Tone Detection Times	Number of busy tone cycles needed for matching
Busy Tone Detection Rhythm	Busy tone rhythm/slot configuration

Option	Description
Caller ID Signal Type	FSK caller ID format (e.g., Bell/ETSI)
Caller ID Start Method	Caller ID trigger method (ringing/polarity reversal, etc.)

Port Indicator Lights

Registration Success Always Bright: No Yes

Line Idle (ms): 0 2000

Line Off Hook (ms): 500 500

Line Ringing (ms): 100 100

Line Talking (ms): 500 500

Line Hang Up (ms): 500 500

FXO Line Disconnected (ms): 1000 1000

6.4 VOIP Settings

On this page, VoIP-related settings can be configured, such as call settings and session settings.

Figure 6-4-1 VoIP Settings

VOIP Settings Save Undo

Basic Settings

Listening Mode:

SIP Start Port:

RTP Start Port:

Unregister Upon Reboot: No Yes

Stun: No Yes

Stun Server Address:

Minimum DTMF Duration:

SIP Special Options Returns Rule:

Table 6-4-1 VoIP Settings Parameters

Option	Description
Monitor Mode	Select monitor mode, optional multi-port or single-port
SIP Start Port	Set SIP start port
RTP Start Port	Set RTP start port
Unregister on Restart	Select whether to unregister on restart
STUN	Select whether to enable STUN
STUN Server Address	Set STUN server address

Figure 6-4-2 VoIP Settings

VOIP Settings Save Undo

Call Settings

User Agent:

Anonymous Call: No Yes

Outgoing Caller ID Priority:

Incoming Call Wait Timeout (s):

Outgoing Call Wait Timeout (s):

Maximum Call Time Limit (ms):

T1 Timeout (ms):

T2 Timeout (ms):

DNSSRV Quick Switch: No Yes

Do Not Escape The "#" Number: No Yes

Disable Communicate Without Network: No Yes

Enable Early Media: No Yes

Table 6-4-2 VoIP Settings Parameters

Option	Description
User Agent	Set User Agent
Anonymous Call In	Select whether to allow anonymous call in
Caller ID Display Priority	Select caller ID priority to display from FROM field or P-Asserted-Identity field
Call In Waiting Timeout	Set call in waiting timeout time
Call Out Waiting Timeout	Set call out waiting timeout time
Call Maximum Duration	Set call maximum duration. Calls will be disconnected after exceeding this time
T1 Timeout	Set T1 timeout time
Network Disconnection Escape	Select whether to enable network disconnection escape. When enabled, internal extensions can call each other even when external network is disconnected
Early Media	Select whether to enable Early Media

Figure 6-4-3 VoIP Settings

Session Settings

Session Timer Mode:

Min-SE (ms):

Session Timeout (ms):

Distinctive Ring

Custom Ringtone:

Alert-Info Matching 1: Ring Tone 1

Alert-Info Matching 2: Ring Tone 1

Alert-Info Matching 3: Ring Tone 1

Alert-Info Matching 4: Ring Tone 1

Alert-Info Matching 5: Ring Tone 1

Caller ID Matching 1: Ring Tone 1

Caller ID Matching 2: Ring Tone 1

Table 6-4-3 VoIP Settings Parameters

Option	Description
Session Timer Mode	Select session timer mode
Min-SE	Set minimum session timeout duration
Session Timeout Time	Set session timeout time
Distinctive Ringing	Set different ringing tones

Figure 6-4-4 VoIP Settings

Ringing Ringtone

Ring Tone 1:

Ring Tone 2:

Ring Tone 3:

Ring Tone 4:

Ring Tone 5:

Ring Tone 6:

Ring Tone 7:

Ring Tone 8:

Ring Tone 9:

Ring Tone 10:

6.5 Security Settings

On this page, certificates can be uploaded.

Figure 6-5-1 Security Settings Interface

The screenshot shows the 'Security Settings' interface. At the top right, there are 'Save' and 'Undo' buttons. The main area contains five text input fields for uploading certificates, labeled 'Certificate 1:', 'Certificate 2:', 'Certificate 3:', 'Certificate 4:', and 'CA Certificate Chain:'. Each field has a small icon in the bottom right corner, likely for file selection.

6.6 VEX

On this page, auto switching configuration can be set.

Figure 6-6-1 VEX Configuration Settings Interface

The screenshot shows the 'VEX' configuration settings interface. At the top right, there is a 'Save' button. Below the title, there are tabs for 'Settings', 'Numbers', and 'Routes'. The main configuration area includes:

- 'Enable VEX:' with radio buttons for 'No' (selected) and 'Yes'.
- 'Enable VEX Auto-Sync:' with radio buttons for 'No' (selected) and 'Yes'.
- 'Protocol:' dropdown menu set to 'HTTP'.
- 'Sync Host:' text input field.
- 'Sync Now' button.

Table 6-6-1 VEX Parameters

Option	Description
Enable Auto Switching	Whether to enable auto switching function
Enable Auto Switching Auto Sync	Whether to enable auto switching auto sync function
Protocol	Freely select HTTP/HTTPS protocol
Sync Address	Enter the address to sync to

Figure 6-6-2 VEX Number Table Settings Interface

The screenshot shows the 'VEX' interface for the 'Numbers' tab. At the top right, there are buttons for 'Add', 'Delete', 'Save', 'Import', and 'Export'. Below the title, there are tabs for 'Settings', 'Numbers', and 'Routes'. The main area includes:

- 'MAC Address:' dropdown menu set to 'All'.
- 'Type:' dropdown menu set to 'All'.
- A red note: '*Gray highlighting for local number information'.
- A table with columns: 'Serial', 'Number(FXS)/Prefix(FXO)', 'Type', 'MAC Address', 'Slot Number', 'Port(FXS)/Group(FXO)', and 'Remark'.
- The table content is empty, with 'No Data Available' displayed at the bottom.

Figure 6-6-3 Routing Table Display Interface

VEX [Add](#) [Delete](#) [Save](#) [Import](#) [Export](#)

Settings Numbers Routes

[Automatic Generation](#)

<input type="checkbox"/>	Serial	MAC Address ↕	Slot Number	IP Address ↕	SIP Port	Remark
No Data Available						

7. Maintenance

7.1 Restart

On this page, restart functions can be configured, including system restart, network restart, and VOIP restart.

Figure 7-1-1 Restart

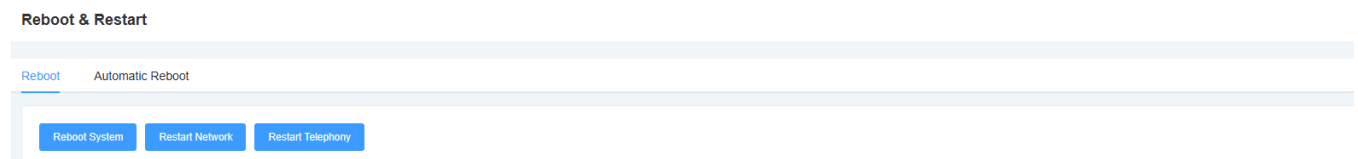
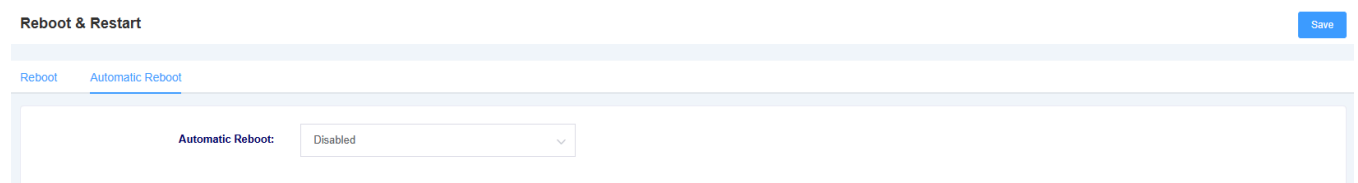


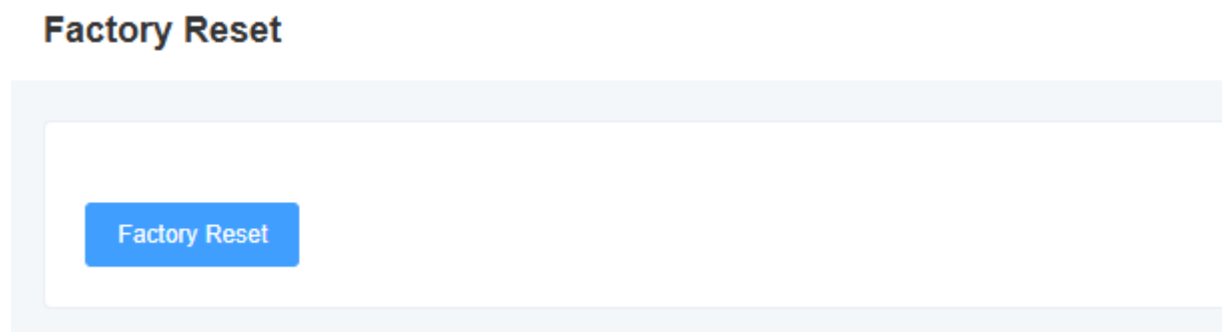
Figure 7-1-2 Auto Restart. You can adjust to disable auto restart, enable weekly auto restart, or enable daily auto restart.



7.2 Factory Reset

After clicking the factory reset button, the device will automatically restart and restore to factory settings.

Figure 7-2-1 Factory Reset Interface



7.3 Auto Deployment

The iAG200 has configuration file and firmware upgrade functions. These can be configured on this page.

Figure 7-3-1 Auto Deployment Interface

Auto Provision:

Auto Provision Hour:

Auto Provision Week:

Auto Provision Scope:

Upgrade Method:

Disable DHCP Option66: No Yes

Firmware Upgrade Address:

Firmware File Prefix:

Firmware File Suffix:

Configuration Upgrade Address:

Configuration File Prefix:

Configuration File Suffix:

Configuration File Name:

Uploading A Configuration File

Table 7-3-1 Auto Deployment Parameters

Option	Description
Auto Deployment	Set auto deployment mechanism. Can choose to deploy automatically after each boot or deploy at set time intervals
Auto Deployment Range	Select auto deployment range. Options: configuration files and firmware upgrades
Upgrade Method	Select auto deployment upgrade method. Supports tftp, http, https
Enable DHCP Option 66	Select whether to enable DHCP option 66 to get files
Option	Description
Firmware Upgrade Address	Set firmware upgrade path
Firmware File Prefix	Set firmware file prefix
Firmware File Suffix	Set firmware file suffix
Configuration Upgrade Address	Set configuration upgrade path
Configuration File Prefix	Set configuration file prefix
Configuration File Suffix	Set configuration file suffix
Upload Configuration	Upload configuration file
Download Configuration	Download device current configuration file

File names must be modified according to rules. Main control firmware file name rule: (pre)(firmware model).img(post). Interface board firmware file name rule: (pre)ixu(mac).img(post). Configuration file name rule: (pre)cfg(mac)(post). Pre is prefix, post is suffix. Prefix and suffix can be left empty.

7.4 Firmware Upgrade

On this page, firmware upgrade can be performed. Select the appropriate firmware type and upload the file to perform the upgrade. You can choose whether to keep system configuration. If not keeping system configuration, the device will clear system configuration after upgrade.

Figure 7-4-1 Firmware Upgrade

Firmware Upgrade

Keep System Configuration: No Yes

Choose File: Choose File

Upgrade from File

Keep System Configuration: No Yes

Upgrade Server:

Upgrade from Server

7.5 Time Settings

On this page, device time settings can be configured. Users can set the timezone and set the NTP server address to automatically synchronize time.

Figure 7-5-1 Time Settings

Time Settings Save Undo

Time Zone:

System Time:

Disable NTP Time Synchronization: No Yes

NTP Server Address1:

NTP Server Address2:

NTP Server Address3:

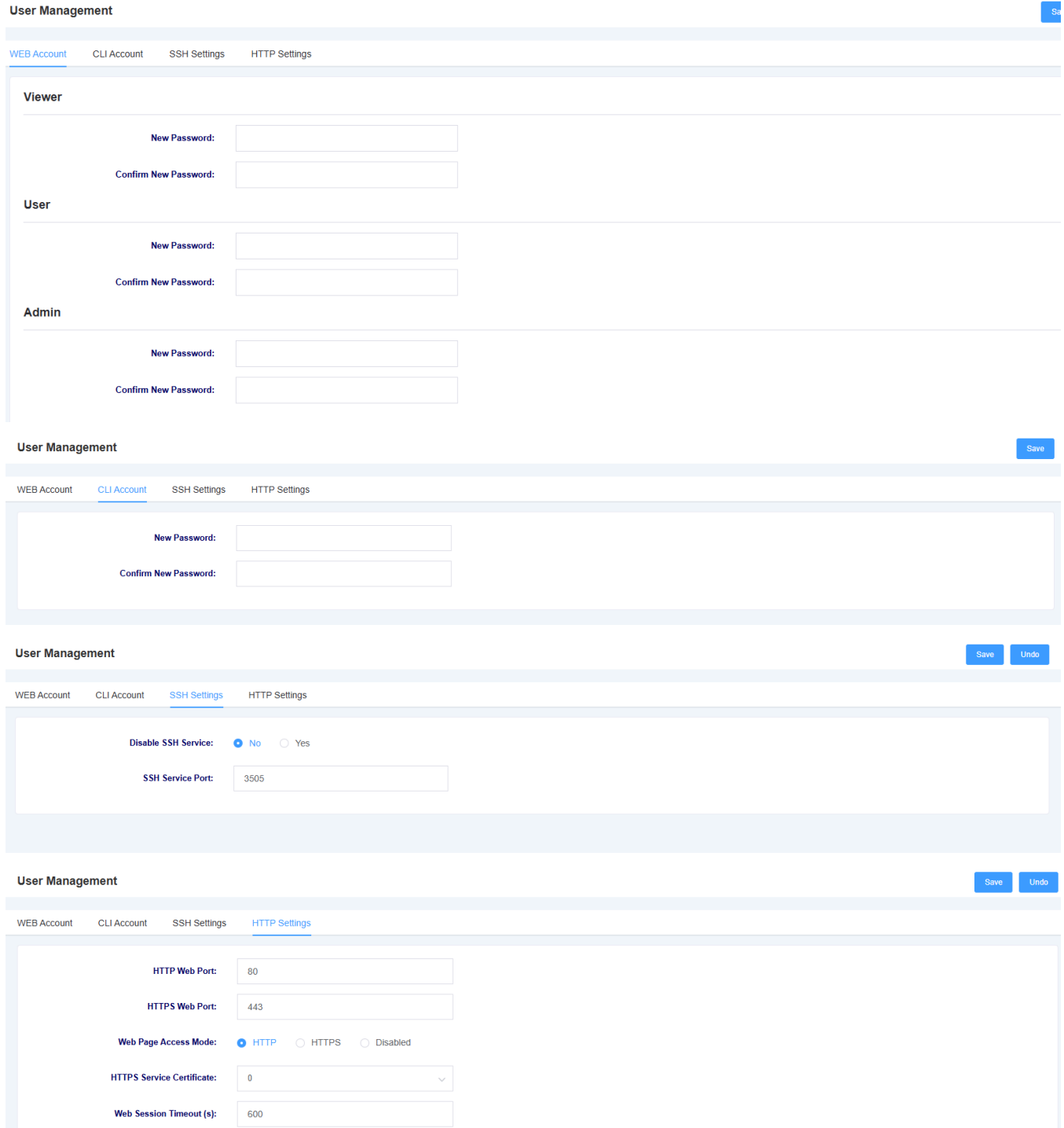
Table 7-5-1 Time Settings Parameters

Option	Description
Timezone	Set device timezone
System Time	Display system time
Enable NTP Time Sync	Select whether to enable NTP time sync
NTP Server Address	Set NTP server address

7.6 User Management

The AIU-8 supports different user roles to log in with different permissions. On the user management page, you can modify passwords, enable/disable SSH function, and configure HTTP settings for different roles.

Figure 7-6-1 User Management



7.7 Network Packet Capture

The AIU-8 can conveniently locate network problems. Users can define the capture interface and select protocol type, address, and port on this interface.

Figure 7-7-1 Network Packet Capture

The screenshot shows a web interface for network packet capture. At the top, there's a title 'Network Capture' and two buttons: 'Start' (blue) and 'Stop' (red). Below the title, there are several configuration fields: 'Interface Name' is a dropdown menu with 'WAN' selected; 'Filter Protocol Type' is a dropdown menu with 'All' selected; 'Filter Address' is an empty text input field; 'Filter Port' is a text input field with '0' entered; and 'Packet Capture State' is a button labeled 'Shut Down'.

7.8 Log Management

On the log management interface, you can set the log server address and port, and select kernel log level to facilitate viewing device logs for technical analysis.

Figure 7-8-1 Log Management

The screenshot shows a web interface for log management. At the top, there's a title 'Log Management' and two buttons: 'Save' (blue) and 'Undo' (blue). Below the title, there are two tabs: 'Log Settings' (active) and 'Log Display'. The main content area contains several configuration fields: 'VOIP Collection Level' is a dropdown menu with 'Off' selected; 'VOIP Enable' is a checkbox labeled 'SIP Protocol' which is unchecked; 'Log Server' is an empty text input field; and 'Log Server Port' is a text input field with '514' entered. At the bottom, there is a red note: 'Note: SIP selection generates extensive logs for debugging. Disable after use to maintain device stability.'

Syslog is commonly called system log or system record. It is a standard for transmitting record messages in Internet Protocol (TCP/IP) networks. This term commonly refers to the actual syslog protocol or applications/databases that send syslog messages. The syslog protocol is a client-server protocol: syslog sends transmit small text information (less than 1024 bytes) to syslog receivers. The receiving end is usually called "syslogd", "syslog daemon", or syslog server. System log messages can be transmitted via UDP protocol and/or TCP protocol.

Syslog Level Introduction:

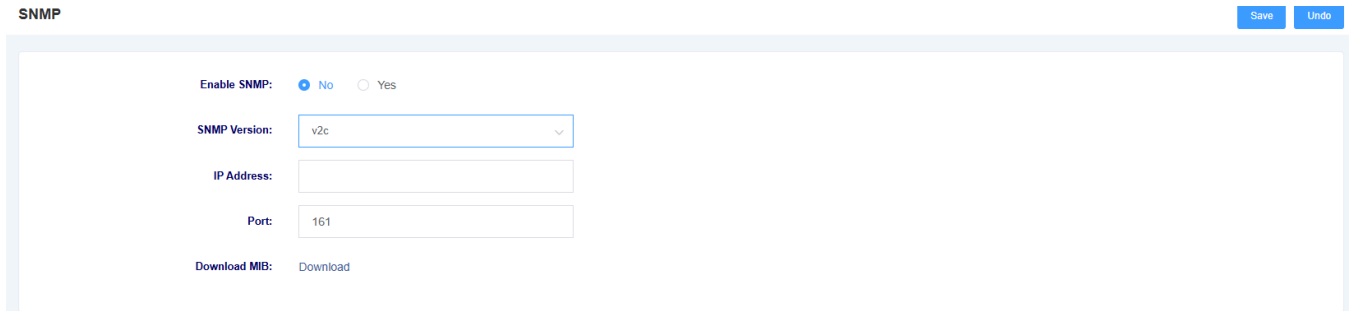
- EMERG Failure
- ALERT Warning
- CRIT Needs immediate solution
- ERROR Error condition that prevents tool or some subsystem partial functionality
- WARNING Warning message
- NOTICE Normal condition with importance
- INFO Information

- DEBUG Other information without function conditions or problems

7.9 SNMP

On this page, SNMP service-related information can be set. The AIU-8 supports SNMPv1, v2c.

Figure 7-9-1 SNMP



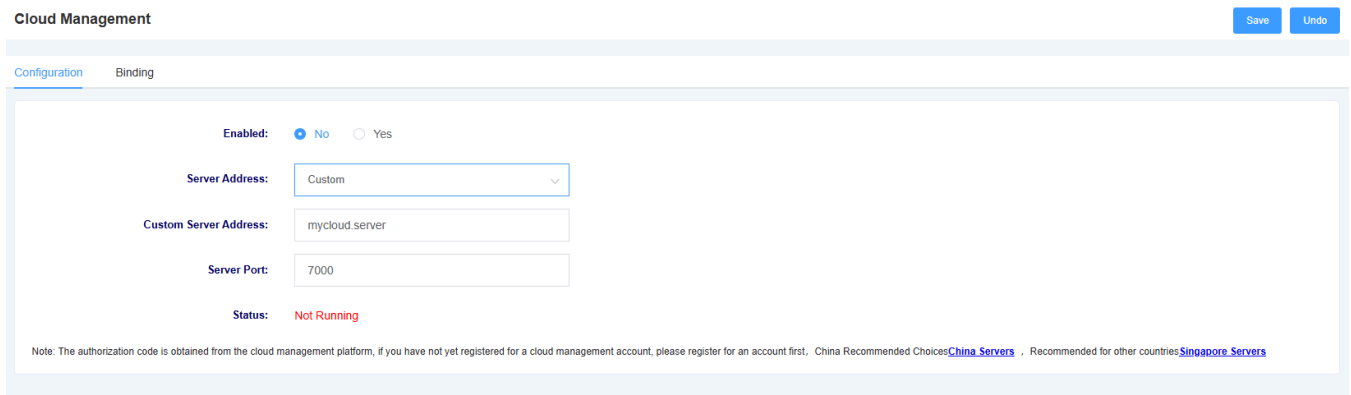
The screenshot shows the SNMP configuration page. At the top left is the title "SNMP" and at the top right are "Save" and "Undo" buttons. The main content area contains the following settings:

- Enable SNMP:** Radio buttons for "No" (selected) and "Yes".
- SNMP Version:** A dropdown menu currently set to "v2c".
- IP Address:** An empty text input field.
- Port:** A text input field containing the value "161".
- Download MIB:** A "Download" button.

7.10 Cloud Management

On this page, cloud management-related information can be set. The AIU-8 supports Openvox cloud management function. After entering the server address, port, and binding code, you can manage the device on the cloud management platform.

Figure 7-10-1 Cloud Management Settings

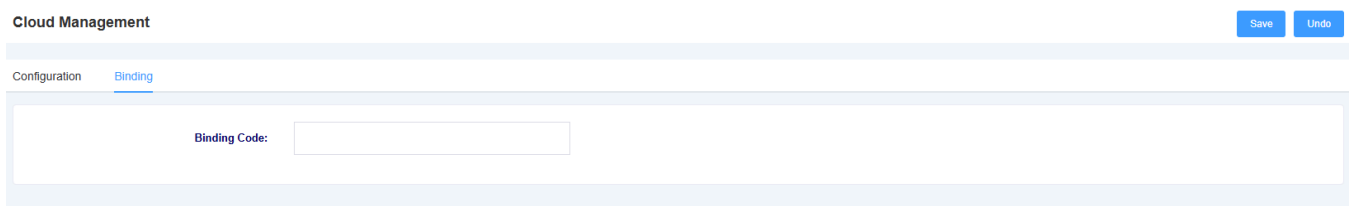


The screenshot shows the Cloud Management Settings page. At the top left is the title "Cloud Management" and at the top right are "Save" and "Undo" buttons. Below the title are two tabs: "Configuration" and "Binding". The main content area contains the following settings:

- Enabled:** Radio buttons for "No" (selected) and "Yes".
- Server Address:** A dropdown menu currently set to "Custom".
- Custom Server Address:** A text input field containing the value "mycloud.server".
- Server Port:** A text input field containing the value "7000".
- Status:** A label indicating "Not Running".

At the bottom, there is a note: "Note: The authorization code is obtained from the cloud management platform, if you have not yet registered for a cloud management account, please register for an account first. China Recommended Choices: [China Servers](#) , Recommended for other countries: [Singapore Servers](#)".

Figure 7-10-2 Cloud Management Binding



The screenshot shows the Cloud Management Binding page. At the top left is the title "Cloud Management" and at the top right are "Save" and "Undo" buttons. Below the title are two tabs: "Configuration" and "Binding". The main content area contains the following setting:

- Binding Code:** An empty text input field.

7.11 UPnP

On this page, UPnP-related information can be set. When enabled, applications in the LAN can automatically request port mapping from the router and perform device discovery and control, thereby achieving zero-configuration internal network service exposure and interconnection.

Switch: Off Enabled

Server Port:

Network Interface:

7.12 Whitelist

On this page, whitelist-related information can be set. After configuration, only IPs in the whitelist can access the device.

Whitelist Add Clear Save

Start Address	End Address	Action
No Data Available		

7.13 Ping Test

On this page, the ping command can be used to test network connectivity.

Figure 7-13-1 Ping Test

Ping Test Start

Destination Address:

Number Of Tests:

Packet Length:

Result:

7.14 Tracert Test

On this page, the tracert command can be used to test network connectivity.

Figure 7-14-1 Tracert Test

Tracert Test Start

Destination Address:

Time To Wait For Response Message:

Maximum Hops:

Result:

7.15 DNS Test

On this page, DNS testing can be performed on a specified DNS.

Figure 7-15-1 DNS Test

DNS Test Start

Destination Address:

DNS Server:

Result:

7.16 Port Recording

On this page, a specified port can be selected for recording to troubleshoot problems.

Figure 7-16-1 Port Recording

Port Recording Start Stop

Port:

Recording Duration (s):

Recording Status: End Of Recording

7.17 Port Test

On this page, a specified port can be selected for port testing to quickly detect if the port is functioning normally.

Figure 7-17-1 Port Test

Port Test Start

Port:

Test Number:

7.18 TR-069

On this page, TR-069-related information can be set. When enabled, the device will establish a secure connection with the ACS to realize automatic configuration, remote upgrade, parameter delivery, and status reporting centralized operation and maintenance functions.

TR-069 Save Undo

Enable TR-069: No Yes

ACS URL:

ACS Username:

ACS Password:

Periodic Inform Enable: No Yes

Periodic Inform Interval:

Connection Request Username:

Connection Request Password:

Connection Request Port:

Connection State: Disconnected

- Enable TR-069: Whether to enable CWMP-based remote management, which establishes a session with

the ACS for provisioning, monitoring, and upgrades.

- ACS Address: The ACS URL the device connects to (including scheme/host/port/path); used to discover and initiate the management session with the ACS.
- ACS Username: Account name used by the CPE for HTTP/HTTPS authentication when connecting to the ACS.
- ACS Password: Authentication credential paired with the ACS username, used to establish a secure session.
- Enable Periodic Connection: Whether to enable periodic Inform reports to upload device status and poll for new commands.
- Periodic Connection Interval (seconds): PeriodicInformInterval, the time interval for periodic Inform messages, in seconds.
- ACS Connection Request Username: Username validated on the device when the ACS initiates a Connection Request to the device.
- ACS Connection Request Password: Credential paired with the above username to verify the origin of the ACS-initiated request.
- ACS Connection Request Port: Local port on which the device listens for ACS Connection Requests; must be allowed/mapped on firewall/NAT.
- Connection Status: Indicates whether the current session/registration with the ACS is successful, helping assess the health of the management link.

Glossary

- DNS: Domain Name System
- SIP: Session Initiation Protocol
- TCP: Transmission Control Protocol
- UDP: User Datagram Protocol
- RTP: Real Time Protocol
- PPPOE: Point-to-Point Protocol Over Ethernet
- VLAN: Virtual Local Area Network
- ARP: Address Resolution Protocol
- CID: Caller Identity
- DND: Do NOT Disturb
- DTMF: Dual Tone Multi Frequency
- NTP: Network Time Protocol
- STUN: Simple Traversal of UDP over NAT
- PSTN: Public Switched Telephone Network