

# Grandstream Networks, Inc.

IPVT10 Administration Guide



# **IPVT10 – Administration Guide**

# WELCOME

Thanks for purchasing Grandstream Network IPVT10 full-HD conferencing system.

This document introduces the IPVT10 installation process and usage instructions, including environment setup, start meetings and operations, scheduling meetings, etc.

For more information about IPVT10 and IPVideoTalk service, please visit the product page at: http://www.ipvideotalk.com

This manual applies to IPVT10 equipment administrators.

#### Caution

Any change that is not authorized by Grandstream Networks Inc., or any operation that is not following this IPVT10 user guide will void the manufacturer's warranty of IPVT10.

# **PRODUCT OVERVIEW**

IPVT10 is an On-Premise Video Conferencing Server designed for enterprises seeking a powerful and secure video conferencing solution. It offers one easy-to-use platform that combines all aspects of enterprise video conferencing applications, including room and web-based options and conferencing management. IPVT10 provides a centralized solution to manage an entire business's conferencing needs through one single server and interface. This On-Premise Video Conferencing Server is ideal for internal conferencing solutions among small and medium-sized enterprises, especially those with multiple locations, for example, communication between headquarters and multiple branch offices. It is also ideal for organizations that need to communicate with remote employees and those who perform remote training and/or education through video conferencing.

## **Feature Highlights**

The following tables contain the major features of the IPVT10:



<ul> <li>Access from PC/Mac, mobile devices, video conferencing systems, video phones, PSTN trunk, or SIP PBX.</li> <li>HTTPS and WSS/DTLSSRTP encryption for WebRTC, TLS/SRTP encryption for SIP.</li> </ul>

Table 1: IPVT10 Features in a Glance

## **IPVT10 Technical Specifications**

The following table resumes all the technical specifications including the protocols/standards supported, server module, audio/video features, MCU functional features, meeting, and device management for IPVT10.

Application Functions	Built-in Video MCU, SIP Registrar Server, H.323 Gateway, NAT Traversal Server, Enterprise Collaboration Server, Contacts Manager, Recording/Storage Server, WebRTC Server.
Conference Capacity	Up to 120-way 1080p H.264 video/audio MCU. Up to 300 participants (aggregate) with 2-way audio and 1-way 1080p H.264 video streaming. Up to 10 meetings of more than three parties or 50 meetings of two parties without WebRTC client.
Video Support	H.264 BP/MP/HP with up to 1080p resolution and 6Mbps bit rate per stream.
Audio Support	Opus, G.722, G.711a/u, up to 48KHz wide-band audio mixing.
Network Jitter Resilience	Advanced anti-jitter algorithms to sustain high-quality audio/video against up to 30% packet loss. Smart adaptation to dynamically adjust bandwidth between 64Kbps and 6Mbps based on the network condition.
Security	Support HTTPS and WSS/DTLS-SRTP encryption for WebRTC, and TLS/SRTP encryption for SIP
Video Display	Support 2×2/3×3/4×4/5×5/6×6/7×7 Tile Video Layout, or 1 Primary + N Secondary (up to 7 secondary) Video Layout. 1 meeting supports up to 3 meeting layouts and also supports assigning the viewing permission for other participants.
Active Speaker Highlight	Automated active speaker detection and highlight.
Meeting Management	Support Immediate or Scheduled Meetings/Webinars, multiple hosts/panelists, audio/video ON/OFF control. Desktop/application sharing, group or private chat, Q&A, meeting banners/captions, sending pictures and files, forced attendee Mute/Camera-Off/Exit by the host. Customizable content for meeting invitation/registration/reminder/post-meeting reports and follow-up.
Live Streaming	Support live streaming with Facebook and Youtube, and other live streaming platforms via RTMP push.

Supported Devices	Grandstream GVC series video conference systems, GXV series video phones, PC/Mac using WebRTC browsers, Android/iOS-based mobile devices using Grandstream IPVideoTalk mobile APP. Audio calling from PSTN SIP trunk or SIP-based IPPBX, 3rd party SIP-based video conference systems and video phones.
Meeting Records	Support up to 500GB local storage of audio/video/chats recording, meeting reports, etc. Support remote mounting NFS extended disk.
Deployment Scalability	Scalable architecture to support multi-server configuration with load-balancing and redundancy for large deployments.
Multi- language	English, German, French, Spanish, Chinese, Japanese, Arabic, etc.
Power Supply	Redundant 550W power supplies.
Network Interfaces	2x Gigabit network ports, 1x RJ45 IPMI network port.
Auxiliary Interfaces	3x USB 3.0 ports, 3x USB 2.0 ports, and 1x VGA port.
Physical Dimension	430mm (W) x 650mm (L) x 88mm (H), 2U rack design suitable for 19-inch cabinet and guide rail.
Temperature & Humidity	Operations 0°C to 45°C, Humidity 10% ~ 90% non-condensing.
Compliance	FCC, CE, RCM.

Table 2: IPVT10 Technical Specifications

# **INSTALLING IPVT10**

## Equipment Package Content





1x IPVT10 Equipment



2x Power Cables

1x Quick Installation Guide

1x GPL Statement

## **Installation Process**

Users need to follow the steps described in the table below to correctly complete the installation of the IPVT10:

Inde x	Steps	Instructions
1	Equipment Inspection	Open the package, check the equipment and accessories, and inspect the hardware structure of the IPVT10.
2	Install to Cabinet (Optional)	Install IPVT10 to the cabinet
3	Connect to Network	Connect to the network with the Ethernet cable.
4	Connect to the power supply	Connect to the power supply with the power adapter.
5	Power On	Inspect the running status of the equipment.

Table 3: IPVT10 Installation Process

## **Equipment Inspection**

Users need to open the package and check the equipment and parts to ensure the integrity and availability of the equipment.

## **Equipment Appearance**

## • IPVT Front Panel



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N O.	Name	Description
1	Equipment Switch	When the equipment is not running, press the switch to turn on the equipment, and when the equipment is running normally, long-press the switch (5 seconds) will turn off the equipment.
2	Reboot Switch	When the equipment is running normally, pressing this switch will reboot the equipment.

3	Power Indicator	<ul> <li>• When the equipment is ON and connected to the power supply: the light is solid green.</li> <li>• When the equipment is OFF and the power supply is not connected with the equipment: the light is off.</li> </ul>
4	Hard Disk Indicator	<ul> <li>When the hard disk is running normally: the light is off.</li> <li>When the hard disk is reading and writing: the light is solid blue.</li> </ul>
5	Network Connection Indicator	<ul> <li>When the network connection is normal: the light is flashing yellow.</li> <li>When the network connection is abnormal, or the network is not connected with the equipment: the light is off.</li> </ul>
6	Ethernet Interface 1 Indicator	<ul> <li>When the network connection is normal: the light is flashing yellow.</li> <li>When the network connection is abnormal, or the network is not connected with the equipment: the light is off.</li> </ul>
7	Ethernet Interface 2 Indicator	<ul> <li>When the network connection is normal: the light is flashing yellow.</li> <li>When the network connection is abnormal, or the network is not connected with the equipment: the light is off.</li> </ul>
8	Failure Indicator	<ul> <li>Normal condition: the light is always off.</li> <li>When the equipment is faulted: the light is flashing red.</li> </ul>
9	USB Interface 1	USB 2.0. Users could connect with a mouse or keyboard.
10	USB Interface 2	USB 3.0. Users could connect with a mouse or keyboard.

Table 4: IPVT10 Front Panel Description

## • IPVT Back Panel



## Figure 3: IPVT10 Back Panel

N O.	Name	Description
1	Power Supply Interfaces	Two Power Supply Interfaces are available on the IPVT10, the users need to connect the power cables to the two interfaces to keep powering the device and to avoid shutting it down in case one of the power supply is defective.
2	IPMI Interface	Intelligent Platform Management Interface.
3	COM Interface	RS-232 serial communication interface

4	USB Interfaces 3 and 4	USB 2.0. Users could connect with a mouse or keyboard.
5	USB Interfaces 5 and 6	USB 3.0. Users could connect with a mouse or keyboard.
6	1000M Ethernet Interface 1	Connect to the network LAN port, connect with a PC to access the configuration page of the server
7	1000M Ethernet Interface 2	Connect to the network LAN port
8	VGA Interface	Connect to a VGA equipment

Table 5: IPVT10 Back Panel Description

## **Equipment Specifications**

Name	Description
Power Supply	550W. (Redundancy PSU)
Applicable Cabinet	2U Rackmount Design, and it supports 19" cabinets and rails.
Equipment Size	Base Equipment Size: Height 88mm * Width 430mm * Depth 650mm.
USB Interfaces	3x USB 3.0 (2 rear, 2 via header). 3x USB 2.0 (2 rear, 2 via header).
LAN Interfaces	2x RJ45 Gigabit Ethernet LAN ports. 1x RJ45 Dedicated IPMI LAN port.
Display Interfaces	1 x VGA port.
Operating Temperature	0°C to 45°C

Table 6: IPVT10 Equipment Specifications

## **Mounting IPVT10 Equipment to Cabinet**

Users can install the IPVT10 in a 19-inch cabinet that conforms to the IEC (International Electro-Technical Commission) 60297 standards.

- 1. The IPVT10 server is heavy and we suggest carrying it with two people at least.
- 2. If the cabinet has been installed, then suggest a space of at least "2U" (1U=44.45mm) to be reserved.
- 3. Users can select the regular rail for installation or optional installation.

Rail structure: It is composed of inner rail, outer rail, and rail holder. The inner rail and the outer rail are connected, and they cannot be split. They are mounted on the cabinet through the rail holder; the inner rail is installed on the server equipment (Rails and Rail Holders are not included within the package contents).

#### Steps:

- 1. Remove the rail holder and the rails by loosening the 4 screws first, and then removing the front and back rail holders.
- 2. Install the inner rail to the server case. Pull the inner rail out of the rail until it cannot be pulled.
- 3. Fix the inner rail with 2 screws to the server case. Fit the smooth surface of the inner rail to the side of the server case and match the screw holes on the inner rail with the screw holes on the server case. Hold the inner rail tightly against the server case and tighten with the screws.
- 4. Repeat steps 1 to 3 to install the other inner rail on the other side of the server case.
- 5. Install the rail holder to the cabinet. Make sure the installation position of the front rail holder on the cabinet, align the two fixing holes between the rail holder and the cabinet corner and tighten the screws. Then, according to the depth of the cabinet (the depth of the cabinet is 650mm), adjust the back-rail holder properly, align the two fixing holes between the back-rail holder and the cabinet corner at the back of the cabinet, tighten the screws. (Note: Please make sure that the front and back rail holders are horizontal).
- 6. Repeat the above steps to install the other front and back rail holders in the cabinet. (Note: Please make sure that the left and right-side rails are horizontal).
- 7. Lift the server up and close to the cabinet so that the back of the server faces the front of the cabinet. Insert the inner rails on the two sides of the server into the front and back rail holders on the cabinet, align the fixing holes and tighten the screws.
- 8. When the installation is completed, push the server into the cabinet.

## **Connecting IPVT10 Server**

#### **Connecting Network Cables**

To ensure to run IPVT10 Server properly, users need to connect the server to a Gigabit switch.

Please connect IPVT10 Server according to the following procedures:

- 1. Connect the RJ45 Ethernet cable with the Ethernet Interface 1.
- 2. Connect the RJ45 Ethernet cable with the Gigabit switch.
- 3. Repeat steps "1" and "2" to connect with Ethernet interface 2.

#### Note

- Please do not use 100M or 10M switches.
- If only one network is used, only one network interface needs to be connected to the switch (Internal Network Setup Ethernet Interface 1, External Network Setup Ethernet Interface 2).





## **Connecting Power Supply cables**

IPVT10 only supports AC power supply, users can connect the two power supply cables following the steps below:

- 1. Connect the standard power supply cable with the equipment.
- 2. Plug the power supply into the AC power supply.
- 3. Repeat steps "1" and "2" to connect the second power supply cable.

#### Note

- Please use the standard three-phase power outlet.
- Please make sure that the output voltage is within the range of the power module (90~264VAC, 8.5~2.7A, 50/60Hz). If it is not within the working range, correct it and do not power on the equipment.

## **Powering on IPVT10**

Before powering on the equipment, users need to ensure that the equipment meets the following conditions:

- If the equipment is installed in a cabinet, please ensure that the screws are fixed, and the equipment has enough space for heat dissipation.
- The connections of the cables on the equipment are normal.
- The input power and current are within the working range of the equipment.
- The distance between the power cable and the Ethernet cable outside the cabinet must be greater than 30 mm.

Once the previous conditions are checked, the users can power up the IPVT10 Server. To make the equipment run properly, users need to press the equipment switch in the front panel of the server to power on the equipment. The indicator will turn to solid green.



#### Figure 5: IPVT10 powered on

After the equipment is turned on, please check the following indicators to make sure the equipment is working properly.

<b>NO</b>	Name	Description
1	Power Indicator	<ul> <li>When the equipment is ON and connected to the power supply: the light is solid green</li> <li>When the equipment is OFF and the power supply is not connected with the equipment: the light is off</li> </ul>
2	Hard Disk Indicator	<ul> <li>When the hard disk is running normally: the light is off.</li> <li>When the hard disk is reading and writing: the light is solid blue.</li> </ul>

3	Network Connection Indicator	<ul> <li>When the network connection is normal: the light is flashing yellow</li> <li>When the network connection is abnormal, or the network is not connected with the equipment: the light is off</li> </ul>
4	Failure Indicator	<ul> <li>Normal condition: the light is always off</li> <li>When the equipment is faulted: the light is flashing red.</li> </ul>

Table 7: Checking the indicators after powering up IPVT10

## Notice

If you encounter any problem about the equipment, please contact with Grandstream support engineer.

# **CONFIGURING IPVT10**

## **Descriptions of Meeting Capacity**

Table 8: IPVT10 Server Meetings Performance

Current Meeting Number	Max Video Feeds	Max Partici pants	Descriptions
1	120	300 (Dual NICs) 200 (Single NIC)	<ul> <li>If the participant only uses a</li> <li>single NIC to join the conference only supports 200 participants in the conference which is limited by the bandwidth. If the participants use dual NICs at the same time, the participants could use different IP addresses to join <ul> <li>the meeting, and the participant amount is up to 300.</li> <li>Supported H.264</li> <li>The meeting allows users to enable all specified meeting layouts.</li> </ul> </li> </ul>
2	120	200	<ul> <li>Supported H.264</li> <li>Both 2 current meetings could enable all specified meeting layouts.</li> </ul>
4	120	160	<ul> <li>With more conferences at the same time for the server loading, the maximum number of participants in the conference will be less.</li> <li>Supported H.264</li> <li>The 4 meetings could enable up to 6 specified meeting layouts.</li> </ul>
6	120	140	<ul> <li>With more conferences at the same time for the server loading, the maximum number of participants in the conference will be less.</li> <li>Supported H.264</li> <li>The 6 meetings could enable up to 4 specified meeting layouts.</li> </ul>
8	120	130	<ul> <li>With more conferences at the same time for the server loading, the maximum number of participants in the conference will be less.</li> <li>Supported H.264</li> <li>The 8 meetings could enable up to 2 specified meeting layouts.</li> </ul>

10	120	120	<ul> <li>With more conferences at the same time for the server loading, the maximum number of participants in the conference will be less.</li> <li>Supported H.264</li> <li>The 10 meetings cannot enable any specified meeting layout.</li> </ul>
50	100	100	<ul> <li>The current meeting amount only allows users to start meetings of two parties, which means each meeting only has 2 participants and allows the two participants to enable their cameras.</li> <li>Supported H.264</li> </ul>

Table 8: IPVT10 Server Meetings Performance

#### Note

- Under poor network conditions, packet loss will cause performance degradation.
- A minimum bandwidth of 5Mbps Download/Upload is required per participant for a 1080p resolution.

## **Configuration Instructions**

Users could manage and configure the IPVT10 configuration information by logging in to the Web UI of the IPVT10 server via a browser of the computer.

## **First-time Configuration**

Users need to properly follow the steps listed in the table below at the first login.

Table 9: Steps for First-time Configuration

Steps	Description
Configure Service IP Address	According to the configuration of the network solution, configure the service IP address. Support to configure dual network adapters, NAT, and routing rules.
Configure SMTP Mailbox	The SMTP mailbox is used as a sender to send the meetings invitation Emails, meetings notification Emails, etc. Users could configure Enterprise email as SMTP Mailbox.
Configure Conference Management Platform Information	This is used to configure the login account, enterprise information, default language, default time zone, and other information on the platform.

Table 9: Steps for First-time Configuration

#### Note

Each one of the steps is described in the next sections. Please, refer to the following sections for more details about IPVT10 initial configuration.

## **Configuration Parameters Modification**

After the deployment is completed, users can modify the configuration parameters.

Parameters	Description

Update Service IP Address	<ul> <li>Please configure this parameter carefully:</li> <li>If the IP address of the IPVT10 is updated during a meeting, the meeting will encounter abnormal issues. The URLs of the scheduled meetings will be inaccessible.</li> <li>When the IP address of the IPVT10 is updated, the service will be restarted automatically.</li> </ul>
Update SMTP Mailbox	When the SMTP Mailbox is updated, it will take effect immediately, and does not affect other data.
Update Conference Management Platform Information	When the Conference Management Platform information is updated, it will take effect immediately, and does not affect other data.

Table 10: Modify Configuration Options

## **Upgrading Service**

If users need to upgrade the software system in the IPVT10, users can log into the Conference Management Platform and upgrade the service.

- Please download the system installation package from Grandstream's Official Website.
- During the upgrading process, the system service will be suspended.
- The upgrading service will not affect the data in the database server and the original configuration.

## **Factory Reset**

Users need to be careful about factory reset operations. When users start to factory reset the device, it will be restored to the factory default settings, and all the data will be erased, including user's data and meetings data.

## Log in to the Configuration Page

IPVT10 has a built-in Web Configuration Management Platform, and users could log in to the platform via a browser by entering the Web Management Platform IP Address or via IPVideoTalk Portal to manage the configuration of the IPVT10.

## Accessing the Configuration Page directly via a Browser

Users need to have a computer that is on the same VLAN network as the server, to be able to log into the server's web management platform.

Table 11:	Default	Login	Username	and	Password

Parameters	Description
Web Management Platform IP Address	192.168.88.88
Admin User Name	admin
Admin Default Password	<ul> <li>If there is no sticker on the device with the random default password, the default password of the device is "change_me".</li> <li>If there is a sticker on the device with the random default password, please use the password on the sticker as the default login password.</li> </ul>

Users need to follow the steps below to log in to IPVT10 Web UI:

- 1. Please make sure that the IP address of the computer is at the same network segment as the servers. If not, go to the "Network" configuration page of the computer to set up the network segment to be the same as IPVT10 servers.
- 2. Enter the default IP address (http://192.168.88.88) of the equipment in the browser of the PC, and press "Enter" to access the configuration page, as the screenshot shows below:



Figure 6: IPVT10 Web GUI – Login

3. Input login user name and password (If there is no sticker on the device with the random default password, the default password of the device is "change\_me"; If there is a sticker on the device with the random default password, use the password on the sticker as the default login password)

4. For security reasons, Users will be asked to change the default password and choose another one before logging in.



Figure 7: IPVT10 Web GUI – Modify Password

- 5. (Optional) Users could select the language on the list at the bottom of the configuration page.
- 6. Click to log in to the configuration page.

If there is an IP conflict, users can connect the PC directly to the server via an Ethernet cable for configuration purposes. Follow the steps below:

- 1. Unplug the Ethernet cable from the Ethernet Port 1 on the IPVT equipment (the first cable interface from left to right in the figure).
- 2. Then, connect the Ethernet Port 1 and a PC with an Ethernet cable as shown in the figure:



Figure 8: Connect IPVT 10 with a PC Directly

3. Enter the default IP address (http://192.168.88.88) of the IPVT10 equipment in the browser of the computer, and press "Enter" to access the configuration page.

4. Input login username and password

5. (Optional) Users could select the language on the list at the bottom of the configuration page.

6. Click to log in to the configuration page.

#### Note

After the configurations are complete, users must unplug the Ethernet cable from Ether Port 1 and reconnect the server to the Gigabit Ethernet switch to ensure that the two Ethernet ports of the equipment are connected to the Gigabit Ethernet.

## Accessing the Configuration Page via IPVideoTalk Portal

Users could log into IPVT10 Web Interface via IPVideoTalk Portal by clicking on "Maintenance", as per the following figure:

Co IPVide	oTalk	Meeting	s Recordings	Contacts Devices Statistics	Server Maintenance	admin <del>v</del>
Meet Now ·	+				Enter Subject/Meeting ID/Pla	in/ Q
Schedule Meeti	ing +	Today	auto_test111		ይ In prod	cess
Upcoming	154	14:59	Room Device: Participants:	WebRTC Browser 0		
History	15319	20:59	Meeting ID: Meeting URL:	7151246 https://IPVT10test.ipvideotalk.cn/7151246, https://192.168.126.242/7151246, https://101.71.248.139/7151246		

Figure 9: Accessing the IPVT10 Configuration Page via IPVideoTalk Portal

## **Update Login Password**

When users first-time login to IPVT10 Web Deployment Platform, it is recommended to modify the password of the administrator account to ensure the security of the system. Refer to the following steps:

- 1. Log in to the Web page of IPVT10.
- 2. Click on the option "Advanced Settings  $\rightarrow$  Modify Password" to access the configuration.

S IPVT10	Advanced Settings	English 🖂 🚺 admin
i≣ Status	General Settings Modify Password Firewall Settings Fail2Ban License Management	
다. Service Configuration	* Old Password:	
Advanced Settings	* New Password:	
Maintenance	* Confirm The New Password:	
	Save	

Figure 10: Modify Password

3. Input "Original Password", "New Password", and "Confirm New Password".

4. Click to save the configuration, and the system will prompt you to save successfully. If the original password is incorrect, or the new password format is incorrect, the corresponding error will be prompted.

#### Important

The password must contain two of the numbers, lowercase letters, uppercase letters, and special characters, and the length is limited to 8-16 characters.

## **Forgot Password**

If users forgot the login password of IPVT10, users could reset the login password to the default password.

- 1. Connect your PC to the Ethernet port 1 of the IPVT10 server directly or change the IP address of your PC to the same network segment as the IPVT10 server (192.168.88.xx), users could access the IPVT10 Web UI directly.
- 2. Use the browser on your PC to access address "**192.168.88.88/iforget**" to open the login password reset page, as the screenshot shows below:



Figure 11: Reset Password

3. Users need to input the MAC address of the IPVT10 server and serial number on the login password reset page.

4. Click on "Reset", and the login password will be reset to the default login password:

- If there is no sticker on the device with the random default password, the default password of the device is "change\_me".
- If there is a sticker on the device with the random default password, please use the password on the sticker as the default login password.

## Setup Wizard

When users try to log in to the IPVT10 Web UI for the first time, users could follow the Setup Wizard to set up the IPVT10 server.

- 1. Users need to select if they want to use the IPVT10 as the host server or slave server:
  - **Host Server**: IPVT10 is used alone or used as a host server in a cluster. There is only one host server in a cluster, users cannot set multiple hosts in a cluster.
  - Slave Server: IPVT10 is used as the slave server in a cluster with another host server and other slave servers. IPVT10 is used to extend the MCU conferencing function for the host server. The salve server does not need to configure N°5 N°7 in the following configuration steps.



Figure 12: Setup example

2. **Network Settings**: Users could configure the server IP address or domain name under this menu. For more details, please refer to section [Network Settings].

3. (Optional) **Configure Service NAT Interfaces**: Users could configure the custom server port under this menu. *For more details, please, refer to section [Configure Service NAT Interfaces]* 

4. **Time Configuration**: The default setting is the server time is synchronized with the NTP server time. If the device is not connected to an external network, users need to set the time manually. *For more details, please, refer to section [Time Configuration]*.

5. (Optional) **Configure SIP Trunk Service Address**: If users need to connect IPVT10 to an external SIP Trunk server, users need to set up the SIP Trunk Service under this menu. *For more details, please, refer to section [Configure SIP Trunk Service Address]*.

6. (Optional) **Configure SMTP Mailbox**: It is recommended to fill in the SMTP Mailbox address. This is used to send invitation Emails to other meeting participants. *For more details, please, refer to section [Configure SMTP Mailbox]*.

7. **Configure Conference Management Platform Information**: This page is used to set the login account information of the conference management platform. This platform is used to manage the devices and conferences. The Conference Management Platform is an independent platform compared with Setup Wizard. *Please refer to section [Configure SMTP Mailbox*]

*This Email* box is used to send the meeting invitation Emails, meeting reminders, and other notifications as the Email sender. If users do not configure this Email box, the system cannot send Emails to inform the meeting participants.

Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Service Configuration" and configure the "SMTP Mailbox" options, as shown below:

#### Service Configuration

Network Settings P	ort Customization	Time Settings	SIP Trunk Settings	SMTP Mailbox	Meeting Managem	ent Platform	Extended Storage	Cluster Settings
This email address will be	e used to send out meetir	ng invitations and not	fications. (If not configured,	no email can be sent)				
	SMTP Se	rver: email-sm	p.us-west-2.amazonaws	.com				
	SMTP Server	Port: 25						
	SMTP Acco	ount: AKIAII752	HIY54PX6K4Q					
	SMTP Passv	vord:						
	Email Display Na	ame: zhhan_no	_reply					
	Sender's Display E	mail: no_reply@	Pipvideotalk.com					
		Ignore t	ne certificate					
		Send a	lest Email					
					Save Cancel			

Figure 24: Configure SMTP Mailbox

3. Input the mailbox and configure the options below:

Parameters	Example
SMTP Server	smtp.gmail.com
SMTP Port	465
SMTP Username	test@gmail.com
SMTP Password	***
Mailbox Display Name	User's enterprise name

Table 15: Configure SMTP Mailbox

4. If the SMTP server is a self-signed certificate, you need to check "**Ignore certificate**". Otherwise, the SMTP mailbox cannot send mail.

5. Before saving the SMTP mailbox configuration, users could click on the "Send a Test Email" button, and input the test email address in the pop-out window to receive the test email, then click on the "Send" button to send out the test email. Then, users could go to the test email box to check the test email. If the user could receive the test email, the SMTP mailbox has been configured correctly. Otherwise, the user needs to check the SMTP mailbox configuration on the Web UI.

	Test Email		×
* Send Test Email to:	hz_no_reply@grandstream.cn		]
		Cancel	Send



6. Users could click to save the configuration and click on "Apply Now" to apply the entire configurations of this page to the server. When the deployment is complete, it will take effect immediately.

If the mailbox configuration is incorrect, or not configured, the Conference Management Platform will not be able to send the meeting invitation Emails, meeting reminder, notification Emails, and etc.

7. **Cluster Settings**: If users only use one IPVT10 server alone, users could ignore this setup step. If users use the IPVT10 in a cluster, this setup step is necessary. *Please, refer to section* [Cluster Settings]

## **Server Status**

Users could log in to IPVT10 and check the server/conference status for the cluster host server like the screenshot shown below:



Figure 13: Server/Conference Status – Host Server

- **Online / Total terminal(s)**: This information shows the number of the devices online currently, and the total number of devices.
- **Meeting(s) in the process:** This information shows the total number of meetings in progress currently. If the IPVT10 is a cluster host server, it will show the total number of ongoing meetings for all servers in the cluster.
- **Current attendee(s):** The information shows the total number of current participants attending the meeting. If the IPVT10 is a cluster host server, it shows the total number of current participants for all servers.
- **Meeting status for all host and slave servers:** The information shows the connection status of each slave server in the cluster, the number of conferences in progress, and the number of total meeting participants.
- **Hard disk status:** If an error occurs in the hard disk of the IPVT10 server, there will be a prompt indicating the user the error. It also displays the hard disk status of each slave server in the cluster.
- Storage Space: It shows the current used storage space and remaining storage space. Users could click on the button

   at the upper right corner to erase all files quickly in the storage space, including the recording files in the storage. If
   the server mounts NFS storage disk, it will show the storage space of the NFS disk. Users could click on the Clear button
   to clean up all data in the NFS disk.
- Network Status: This information shows the network speed of the two Ethernet ports on the IPVT10 server.
- Interface Status: This information shows the current server's socket usage status. If the socket usage status is detected as "In use", it will display solid green.

Users could check the server/conference status for the cluster slave server as the screenshot shows below:



Figure 14: Server/Conference Status – Slave Server

- **Meeting(s) in process**: This information shows the total number of meetings in progress currently. If the IPVT10 is a cluster host server, it will show the total number of ongoing meetings for all servers in the cluster.
- **Current attendee(s)**: The information shows the total number of current participants attending the meeting. If the IPVT10 is a cluster host server, it shows the total number of current participants for all servers.
- **Hard disk status**: If an error occurs in the hard disk of the IPVT10 server, there will be a prompt indicating the user the error. It also displays the hard disk status of each slave server in the cluster.
- Network Status: This information shows the network speed of the Ethernet ports on the IPVT10 server. For slave servers, users only need to connect the Ethernet port 2 with the Internet.
- Interface Status: This information shows the current server's socket usage status. If the socket usage status is detected as "In use", it will display solid green.

Below are the explanations of each Hard Disk status icon:

	This icon represents the normal status of the Hard disk.
•	This icon means that the Hard disk status is abnormal, and the specific disk symbol will be displayed.
	This icon means that the drive letter is rebuilt, and the specific disk symbol is displayed. After the reconstruction is successful, it will return to normal.

## **System Information**

Users could view the system information of the server, such as MAC address, System version number, IP address, etc., as shown in the figure below:

S IPVT10	Status		English \vee 🚺 admin 🗸
i≣ Status	Service Status	System Information	
G Service Configuration		MAC address: ac.116b.62.5d.f4	
Advanced Settings		System Version: 10.35	
Debug	Ethernet Inter	eface 1	
		IP address: 192.168.126.242 Subnet Mask: 255.255.255.0 Gateway: 192.168.126.1 Preferred DNS: 8.8.8 Atternate DNS:	
	Ethernet Inter	eface 2	
		IP address:       101.71.248.139         Submer Mask:       255.255.248         Gateway:       101.71.248.137         Preferred DNS:       221.12.1227         Alternate DNS:       221.12.33.227         Use NAT:       Off         NAT IP Address:       241.441.47	
		Copyright © 2019 Grandsteam Networks, Inc. All rights reserved.	

Figure 15: System Information

## **Cluster Host Server Configuration**

## **Network Settings**

The IPVT10 server supports two network adapters that can be configured based on the actual requirements. There are 5 typical network deployment Scenarios:

- Scenario 1: The server is deployed on the internal network. The end-users use the service only within the internal network. Users could only configure the internal network IP address.
- Scenario 2: The server is deployed on the external network. The end-users use the service via the public network. Users need to configure the external IP address.
- Scenario 3: The server is deployed on the internal network. The end-users use the service via the public network. In this case, users need to configure the internal IP address and NAT in the server.
- **Scenario 4:** The server is deployed on the internal network. The end users can use the service via both internal and external networks. In this case, users need to configure the server with both internal network and external network and routing rules.
- Scenario 5: The server is deployed on the internal network. The end users can use the service via the internal network and limit certain external IP addresses to access the service. In this case, users need to configure the internal network, external network, NAT, and routing rules in the server.

Parameters	Description
Native Domain Name	Configures the domain name of the IPVT10 server.
Internal Network Adapter	Configures Internal Network Adapter's parameters.
External Network Adapter	Configures External Network Adapter's parameters.
IPv4 Address	Configures the IP Address for IPVideoTalk Portal.
Subnet Mask	Configures the Subnet Mask.

#### **Options Descriptions**

Gateway	Configures the default Gateway.
Preferred DNS	Set the Preferred DNS.
Alternative DNS	Set the Alternative DNS.
NAT	Enable/Disable NAT. It allows users to set the IP address of NAT or the dynamic domain name of NAT.
Routing Rules	Set the advanced configuration Routing Rules to ensure accessing the destination IP address when using two Network Adapters.
Use Custom Certificate	Configures the key of the custom certificate.

Table 16: Parameters Descriptions

Please refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Go to "Service Configuration"  $\rightarrow$  "Network Settings", as the figure is shown below:

S IPVT10	Service Configuration		English 🗸 🌒 admin 🗸
i≣ Status	< Network Settings Port Customization	Time Settings SIP Trunk Settings SMTP Mailbox	Meeting Management Platform Extended S >
G Service Configuration	Native Domain Name:	malab.grandstream.com	
Advanced Settings	Internal network adapter		
Maintenance	Please make sure 'Ethernet Interface 1' is connecte	d to the network. 0 Diagram	
-	* IPv4 Address:	192.168.5.61	
	* Subnet Mask	255.255.255.0	
	* Gateway:	192.168.5.1	
	* Preferred DNS:	8.8.8	
	Alternate DNS:	8.8.4.4	
	External network adapter		
	Please make sure 'Ethernet Interface 2' is connected	d to the network. () Diagram	
	* IPv4 Address:	192.168.5.62	
	* Subnet Mask	255.255.255.0	
	* Gateway:	192.168.5.1	
	* Preferred DNS:	8.8.8.8	
	Alternate DNS:	8.8.4.4	
	NAT	Z Enable	
		196.70.9.12	
	Routing rules     Please specify a network adapter to access the des     Add	tination IP address. When using two network adapters, configure one of	them first.
	Destination IP address Subnet ma	ask Gateway Neb	vork adapter Operation
		No Data	
	Use custom certificate		
		Save Cancel	
			¥

Figure 16: Service IP Address Config – Internal Network Adapter

3. (Optional) Users could configure the domain name of the IPVT10 server, and users have to own the permission of this domain name. Users also need to point this domain name to the IP address of the IPVT10 configured address.

## Note

If users configure the internal IP address and external IP address for the IPVT10 server, users need to point to the internal network of the domain name to the internal IP address of the IPVT10 server and point the external network of the domain name to the external IP address of the IPVT10 server.

4. According to the actual requirements, users could configure the 1 or 2 network adapters. Users could configure Internal Network Adapter only, External Network Adapter, or both.

5. Users need to configure "IPv4 Address", "Subnet Mask", "Gateway", "Preferred DNS", and "Alternative DNS" (optional) for the network adapter.

#### Note

Please make sure that there should be no conflict in the IP address. Otherwise, the service will be unavailable.

6. (Optional) If the selected adapter is an external network adapter, users could configure static NAT or dynamic NAT for the IPVT10. If the user configures a dynamic domain name, the user needs to configure the interval (count by minutes) to resolve the IP address of the domain name. The default setting is 1 minute.

#### Note

External n Please make

- NAT could translate the private IP address of the internal network into a public IP address so that an external conference client can access the server of the internal network through the public network.
- If dynamic NAT is used, once the IP address of the domain name is changed, the system will be restarted the service automatically, which will cause the current ongoing meeting to be temperately disrupted. (dynamic NAT is not recommended unless no choice is available)

etwork adapter			
sure 'Ethernet Interface 2' is connected	l to the network. 🚺 Diagram		
* IPv4 Address:	192.168.121.74		
* Subnet Mask:	255.255.255.0		
* Gateway:	192.168.121.1		
* Preferred DNS:	192.168.121.118		
Alternate DNS:			
NAT:	Enable		
	Dynamic DNS 🗸	www.ipvt10.com	
	Parsing polling (in minutes)	1	

Figure 17: Service IP Address Config – External Network Adapter

7. When two network adapters are configured, users must configure the routing rules based on the actual requirements by clicking the icon. Multiple routing rules can be configured in the IPVT10 server. Users can also edit and delete a certain routing rule.

#### Note

Routing rules must be specified for the external network and all network segments in the enterprise network environment.

Routing rules     Please specify a network adapter to access the destination IP address. When using two network adapters, configure one of them first.     Add					
Destination IP address	Subnet mask	Gateway	Network adapter	Operation	
0.0.0.0	0.0.0.0	192.168.126.1	Internal network adapter	ピ 💼	

Figure 18: Configure Network Routing Rules

Parameters	Description

Destination IP Address	This is used to configure the destination IP address for the network. This option must be configured with the Subnet Mask option.
Subnet Mask	This is used to configure the subnet mask.
Gateway	This is used to configure the gateway of the destination network.
Network Adapter	This is used to select the server network adapter for the destination network.

#### Table 13: Configure Network Routing Rules

8. (Optional) If users set the domain name as the in the IPVT10, users could also set "Use Custom Certificate" like the screenshot shown below:

_			
1	I ISA	custom	certificate
- 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1	030	custom	certificate

* Private Key:	PEM encoding
* Public Secret Key Certificate:	PEM encoding
The Certificate Chain:	(Optional) PEM encoding



## Note

This certificate is the server signaling certificate and Web access certificate for the server.

9. Continue to fill in the other configuration options. For the first deployment, users must fill in all required fields.

10. User could click to save the configuration and click on "Apply Now" to apply the entire configurations of this page to the server. When the deployment is complete, it will take effect immediately.

#### Note

- When the deployment is complete, users need to check whether all network interfaces of the server are all connected. For a single network, only one network interface needs to be connected to the network (Internal Network Network Interface 1, External Network Network Interface 2).
- If users modify the IP address of the server during the conferences, it may cause abnormal issues for the ongoing conferences, and the scheduled conferences will be inaccessible.
- When users modify the parameters of the server, the server will restart the service automatically.

## **Configure Service NAT Interfaces**

To use the IPVT10 service on the enterprise's private network, users could customize the service port. The default service ports are shown below:

Server Components	Protocol	Default Port	Descriptions
Web Server	НТТР	80	Conference Web UI, Requests Management, API Server Note: the Nginx web server has been updated to version 1.22.1 on firmware release 1.0.6.14
Web Server	HTTPS/W SS	443	Conference Web UI, Requests Management, API Server, Connect to Web socket
SIP Server	TCP/UDP	5060	SIP signaling access for different devices, Trunk/PSTN Connection
SIP Server	TLS	5061	SIP signaling access for different devices, Trunk/PSTN Connection
SIP Server	UDP	1719	H323 RAS Registered Access
SIP Server	ТСР	1720	H323 Q93 Call Access
Media Server	TCP/UDP	5062	External control port
Media Server	UDP	60000- 65000	Port range of media streams: Requirements: Port starting should not be lower than 1024, the range is not less than 3000.

Table 14: Service Port Configuration

Please refer to the following steps:

1. Login IPVT10 Web Management UI.

2. Click on the "Service Configuration" on the left side of the UI and select "Service Port Configuration", as shown below:

S IPVT10	Service Configuration					English 🗸 🚺 admin
i≡ Status	< Network Settings Port Custo	mization	Time Settings	SIP Trunk Settings	SMTP Mailbox	Meeting Management Platform
Service Configuration	Note: You can't set the custom ports as in	iternal ports 🛭 🛈 Vi	íew details			Restore to Default Port
Advanced Settings	Server components	Protocol	Port		Description	
	Meeting management server	HTTP		780	Meeting web p	oage, management request, API server
	Meeting management server	HTTPS/WSS		7443	Meeting web p websocket acc	oage, management request, API server, :ess
	Signaling server	TCP/UDP		5060	Signaling acce	ss of devices, Trunk/PSTN docking
	Signaling server	TLS		5061	Signaling acce	ss of devices, Trunk/PSTN docking
	Signaling server	UDP		1719	H323 RAS regi	stered access
	Signaling server	ТСР		1720	H323 Q93 call	access
	Media server	TCP/UDP		5062	External contro	ol port
	Media server	UDP	600	000 ~ 65000	Media stream	port range 📀
			Sa	ve Cancel		

Figure 20: Service Port Configuration

3. Click to open the menu "Service Port Configuration" to customize the service ports based on the requirements.

4. When finished updating the ports, click on the "Save" button to save the configuration, and click on the button "Apply Now" to confirm the customized service ports. The server will reboot to apply the changes.

#### Note

- The customized service ports cannot be duplicated.
- The ports below cannot be set as customized service ports: "21, 25, 1718, 3000, 3306, 5070, 5071, 5072, 5073, 5074, 5080, 6379, 6380, 6381, 8006, 8008, 8010, 8012, 8080, 8081, 8083, 8090, 9080, 80000, 111, 2049, 3002, 3003, 3004".
- If the service ports are set incorrectly, users cannot use the corresponding services normally.

## **Time Configuration**

Users could check the current time and time-zone of the server and correct it at any time to avoid the meeting time inaccurate or cannot be launched issues.

Please, refer to the following steps:

1. Login IPVT10 Web UI.

2. Click on "Service Configuration", and configure the "Time Settings" options, as the figure is shown below:

S IPVT10	Service Configuration				English	🜒 admin 🗸
i≡ Service Status	Network Settings Port Customization	ime Settings SIP Trunk Settings	SMTP Mailbox	Meeting Management Platform	Cluster Settings	
Service Configuration	NTP Server:	Synchronize NTP server time				
Advanced Settings		pool.ntp.org				
Debug	Date:	2018-08-24	<b></b>			
	Time(UTC):	08:45:48	C			
		Sa	ze Cancel			

Figure 21: Time Settings

3. It shows the current time of the server by default.

4. Users could set whether to synchronize the SNTP server time. If there is no available SNTP server, users could adjust the date and time manually.

5. Users could click on "Save" to update the server time immediately.

## **Configure SIP Trunk Service Address**

(Optional) Users could configure the SIP Trunk server address based on the actual requirements. If users configure this service, users could use the PBX platform or PSTN Trunk server to connect via IPVideoTalk conference system, user also cloud set DialPlan to dial out the 3<sup>rd</sup> party PBX platform.

#### • Connecting to the IPVideoTalk Conference System with 3<sup>rd</sup> Party Platform (PBX or PSTN)

To connect the IPVideoTalk Conference System with a 3<sup>rd</sup> party platform, please refer to the following steps:

- 1. Login IPVT10 Web Management UI.
- 2. Go to "Service Configuration  $\rightarrow$  SIP Trunk Settings", and users will see the page below:



Figure 22: SIP Trunk Service Configuration – Access

3. Configure the SIP Trunk server address. If the option "Accessible to any IP address" is checked, all the IP addresses can connect to the IPVT10 server. If the option "Only accessible to the following IP address" is checked, users need to input the certain IP addresses which can access the IPVT10 server. Users could configure up to 10 IP addresses, and only the candidates can access the IPVT10 conference system.

4. Check and choose whether 3<sup>rd</sup> party supports SRTP. If supported, then use SRTP otherwise use RTP instead.

5. (Optional) Configure the IVR voice access number. If the configured Trunk server connects to the conference via IVR voice access number, users need to configure the IVR voice access number before using the service. If the Trunk server supports recognizing the IPVideoTalk conference ID, and dials to the IPVT10 server via the conference ID, then users do not need to configure the IVR voice access number.

6. (Optional) Configure the PSTN access number, this is only used for display. If users want to show the PSTN access number in the conference invitation Emails, or the meeting details, users could configure this option. If there are multiple PSTN access numbers, please separate the numbers by comma (e.g. +861234567, +8687654321).

#### **Typical Scenarios**

#### Scenario 1

There are one or more SIP Trunk servers in the enterprise, and the administrator wants the users to dial the meeting by IPVT10 meeting ID directly.

#### **Prerequisites:**

SIP Trunk server needs to be able to recognize the conference ID of IPVT10. When users dial this conference ID, users will be connected to the IPVT10 server.

#### **Configuration:**

Users need to configure one or more SIP Trunk server addresses.

#### Scenario 2

There are one or more SIP Trunk servers in the enterprise, and the administrator wants the users to dial the unique access number and follows the IVR to input the conference ID to join the meeting.

#### **Prerequisites:**

SIP Trunk server needs to be able to recognize the IVR access number. When users dial this IVR access number, users will be connected to the IPVT10 server.

#### **Configuration:**

- One or more SIP Trunk server addresses
- IVR voice access number

#### Scenario 3

There are one or more PSTN Trunk servers in the enterprise, and the administrator wants the PSTN users to access the IPVT10 conference.

#### **Prerequisites:**

Users need to configure the unique accessible PSTN numbers for the PSTN Trunk servers. When users dial the PSTN numbers, users can connect to the IPVT10 server.

#### **Configuration:**

- One or more SIP Trunk server addresses
- (Optional) IVR voice access number
- If users want to show the PSTN access number in the invitation Emails, users could configure the PSTN access number option.

#### Scenario 4

There is one SIP Trunk server and one PSTN Trunk server in the enterprise, and the administrator wants the PSTN users and SIP users both could join in the IPVT10 conference.

#### **Prerequisites:**

- If users connect to the SIP Trunk server via IVR, the IVR access number should be recognized (refer to scenario 2). Otherwise, please kindly refer to scenario 1.
- Users need to configure the unique accessible PSTN numbers for the PSTN Trunk servers. When users dial the PSTN numbers, users can connect to the IPVT10 server.

#### **Configuration:**

- One or more SIP Trunk server addresses
- (Optional) IVR voice access number
- If users want to show the PSTN access number in the invitation Emails, users could configure the PSTN access number option.
- $\circ~$  Dial out to the Accounts on the 3^{rd} Party Platform

If users need to join the IPVT conference with the 3<sup>rd</sup> party platform accounts, users need to configure the 3<sup>rd</sup> party platform accounts rules and server address in the IPVT10. Please, refer to the following steps:

- 1. Login IPVT10 Web Management UI.
- 2. Click on the "Service Configuration" on the left side of the UI, and check the figure below:
- 3. Users could select using which IP address of the IPVT10 server (internal network/external network) to call the third-party platform.
- 4. Input the dialing prefix, and it is used to recognize the accounts in the 3rd party platform. The special characters (e.g. + \*
  #) are necessary. For example, the account in the 3rd party platform is +86 88888, and the +86 is the dialing prefix. The call will be made to the target server including the prefix.

#### Note

Users could check the option "Remove the prefix before dialing", in order to remove the prefix when dialing to the third-party platform account.

S IPVT10	Service Configuration			Englis	h 🗸 💽 admin 🗸
i≡ Status	PSTN Access Number:	Optional, e.g. +1 88888, +86 88888			
Service Configuration	Call 3rd Party platform				
- D Service comparation	Use The Network:	(Internal network) 192.168.126.249	Use this network to call a 3	rd party account	
Advanced Settings	Dial Prefix:	+86			
Maintenance					
		Tip: If dialing +86 123456, remove the prefix +86 and ca	II 123456 to reach the third-pa	ty platform	
	Target Server Address:	ims.ge.chinamobile.com	Port		
	Outbound proxy:	221.176.60.69	5060		
	Protocol Type:	ТСР			
	SOTO succession	V N-			
	SKIP support:	Yes U No			
	Authentication:	<ul> <li>No authentication needed for this platform</li> </ul>			
		O Unified platform accounts authentication			
		One-to-one platform account authentication			
		Only the mapping IPVideoTalk ID has permission to cal	the account of the third-party	platform.	
		Add			
		SIP account Password		Mapping IPVideoTalk ID	Operation
		+861053964060 17121904	23709270	102	2
		Save	Cancel		

Figure 23: SIP Trunk Service Configuration - Call

5. Configure the server address and port for the target server, which is the server IP address or domain name of the 3rd party platform, and the port number of the target server.

6. Select the "Protocol Type" for the 3rd party platform (TCP/TLS/UDP).

7. Check and choose whether 3rd party supports SRTP. If support, then use SRTP otherwise use RTP instead.

- **Unified platform accounts authentication:** Users only need to configure 1 SIP account and password on the 3<sup>rd</sup> party platform, the IPVT10 will always use this SIP account and password authentication to access the 3<sup>rd</sup> party platform.
- One-to-one platform account authentication: Users need to configure multiple SIP accounts, passwords, and mapped IPVT ID on the 3rd party platform. Only the authenticated IPVT IDs can access the 3<sup>rd</sup> party platform. Users could add multiple accounts or edit/delete the accounts.

#### Note

The mapped IPVT IDs have to be the existing accounts in the IPVT10 server.

8. When the configurations are done, users click to save the configuration and click on the "Deploy to server" button to apply the changes. The server will reboot to apply the changes.

#### Note

Video display is supported for UCM meeting attendees.

## **Configure SMTP Mailbox**

This Email box is used to send the meeting invitation Emails, meeting reminders, and other notifications as the Email sender. If users do not configure this Email box, the system cannot send Emails to inform the meeting participants.

Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Service Configuration" and configure the "SMTP Mailbox" options, as shown below:

Service Configuration					
Network Settings Port Customization Tir	ne Settings SIP Trunk Settings	SMTP Mailbox	Meeting Management Platform	Extended Storage	Cluster Settings
This email address will be used to send out meeting invit	ations and notifications. (If not configured, n	io email can be sent)			
SMTP Server:	email-smtp.us-west-2.amazonaws.	com			
SMTP Server Port:	25				
SMTP Account:	AKIAII75ZHIY54PX6K4Q				
SMTP Password:		•			
Email Display Name:	zhhan_no_reply				
Sender's Display Email:	no_reply@ipvideotalk.com				
	Ignore the certificate				
	Send a Test Email				
			Save Cancel		

Figure 24: Configure SMTP Mailbox

3. Input the mailbox and configure the options below:

Parameters	Example
SMTP Server	smtp.gmail.com
SMTP Port	465
SMTP Username	test@gmail.com
SMTP Password	***
Mailbox Display Name	User's enterprise name

Table 15: Configure SMTP Mailbox

4. If the SMTP server is a self-signed certificate, you need to check "**Ignore certificate**". Otherwise, the SMTP mailbox cannot send mail.

5. Before saving the SMTP mailbox configuration, users could click on the "Send a Test Email" button, and input the test email address in the pop-out window to receive the test email, then click on the "Send" button to send out the test email. Then, users could go to the test email box to check the test email. If the user could receive the test email, the SMTP mailbox has been configured correctly. Otherwise, the user needs to check the SMTP mailbox configuration on the Web UI.

	Test Email		>
* Send Test Email to:	hz_no_reply@grandstream.cn		
		Cancel	Send

Figure 25: Test Email

6. Users could click to save the configuration and click on "Apply Now" to apply the entire configurations of this page to the server. When the deployment is complete, it will take effect immediately.

#### Note

If the mailbox configuration is incorrect, or not configured, the Conference Management Platform will not be able to send the meeting invitation Emails, meeting reminder, notification Emails, and etc.

## **Configuring Conference Management Platform Information**

The Conference Management Platform provides the following features:

- Instant Meeting: Create a temporary meeting for a certain conference client.
- Schedule Meeting: Remote schedule a meeting for a certain conference client.
- Join Meeting: Join a meeting with the browser WebRTC client.
- **Manage Meeting:** Start/Cancel scheduled meetings, check the meeting histories, check the meeting participants list after the meeting, and other statics information.
- Manage Recording Files: Check/Download cloud recording files.
- Manage Clients: Manage all clients which are connected to the IPVT10 server, such as GVC32XX.
- Add User: Create user accounts for the Conference Management Platform.

Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Service Configuration", and configure the "Meeting Management Platform" options, as the figure is shown below:

S IPVT10	Service Configuration	English $\vee$ 🚺 admin $\vee$
i≡ Status	Network Settings Port Customization Time Settings SIP Trunk Settings SMTP Mailbox Meeting Management Platform Extended Storage	Cluster Settings
Service Configuration	Please set the login account and other information of the meeting management platform (https://192.168.200.251)	
Advanced Settings	* Administrator Account: admin	
Maintenance	Administrator Password: 🗌 Modify Password	
	* Business Name: IPVT10	
	* Administrator Email: gs@test.com	
	* Country: United States of America	
	* Default Time Zone: Asia/Hong, Kong	
	Default Language: English	
	* Display Meeting URL in Email 🔘 📄 Domain: ipvt10test.jpvideotalk.cn	
	Meeting IP address (via internal network): 192.168.200.251	
	Meeting IP address (via external network): 101.71.248.139	
	* Length of host code: 4 Digit The more digits, the higher security for the host authority	
	* Preferred Video Codec: O H264 (Less system resource required)	
	<ul> <li>VP8 (Only for WebRTC. High resistance to packet loss with more system resource required)</li> </ul>	
	Video Bit Rate Type Settings: O CBR (Constant Bit Rate)	
	O VBR (Variable Bit Rate)	
	Video Bit Rate Settings: It refers to the setting of bit rate where Server sending to all terminals.	
	1080P Video Bit Rate: 3072Kbps	
	720P Video Bir Rate: 2048Kbps	
	480P Video Bit Mate: 1024Kbps V	

Figure 26: Configure Conference Management Platform

#### 3. Input the parameters as follows:

Parameters	Description	Example
Admin Username	Conference Management Platform administrator's username.	The default value is "admin".
Admin Password	Conference Management Platform administrator's password.	The default value is "admin".
Enterprise Name	Conference Management Platform enterprise display name	User's enterprise name
Admin Email	This is used to retrieve the passwords or receive system notification Emails.	Administrator's Email box

Country	Enterprise Location	The default value is "US".
Language	Conference Management Platform language	The default value is "English". <b>Note:</b> If the language changes to Spanish or Russian, the conference IVR will also be switched to Spanish or Russian. While for all other languages the IVR will still be English.
Displaying Meeting Address in Email	Select the meeting address that needs to be released in public, which is the meeting address displayed in the invitation email. Users could select the domain name, internal IP address, and external IP address which has been configured in the server.	If the domain name could be resolved automatically to the internal IP address or external IP address according to the local network, users only need to release the domain name in public.
Length of Host Code	Set the host code length of the meeting. Supports [4 – 32] digits. <b>Note:</b> The host code is used to obtain the permission of the host in the meeting.	The default setting is 4 digits. If the user needs to improve the security, he can increase it up to 32 digits.
Video Mode	Force to use MCU Mode	The default setting is Disabled
Video Stream	Force to send 1080p video to 3 <sup>rd</sup> -party Endpoint	The default setting is Disabled
Video Bit Rate Type Settings	Select the type of video bitrate for the media server, dynamic bit rate, or static bit rate.	The default setting is the static bit rate.
Video Bit Rate Settings	Select the video bit rate sent to each client by the media server, including the bit rate corresponding to various resolutions.	The default setting is the maximum supported performance of the server, which is based on the local network conditions.

Tahle	16 <sup>.</sup>	Configure	Conference	Manaaement	Platform
luble	10.	Configure	Conference	munuyement	Flugorin

4. Click on "Apply Now" to apply the entire configurations of this page to the server. When the deployment is complete, it will take effect immediately.

## **Third-Party Speech Recognition Service Configuration**

Users can configure the Speech Recognition Service in their Google account for IPVT10 to benefit from Google Speech Recognition Services to convert meeting speech to text as meeting records.

**Prerequisite**: The user needs to have a Google account that has speech-to-text service enabled, and the user needs to download the relevant certificates. (Users may need to check Google's official website to learn more details about this service.)

- 1. Login IPVT10 Web UI.
- 2. Click on "Service Configuration", and configure the "Meeting Management Platform" options, as the figure is shown below:



Figure 27: Configure Conference Management Platform – Speech Recognition Configuration

3. Check the "Enable" option and upload the service certificate of Google Speech Recognition.

4. Click the "Save" button to apply the changes, the Google Speech Recognition service will be enabled during the meeting (WebRTC client). The meeting speech will be converted to live meeting captioning during the meeting.

#### Note

Currently, only English is supported for this service, other languages are not supported.

## **Extended Disk**

If the user needs more storage disks or prefers to store meeting files on other extended disks, the user could follow the steps below to set up the extended disks:

- 1. Login IPVT10 Web UI.
- 2. Go to "Service configuration" and configure "Extended Storage" options.

3. Select to activate or inactivate "NFS Storage Disk", as the figure shows below:

S IPVT10	Service Configuration English $\checkmark$ (1) admin $\checkmark$
i≡ Status	Network Settings Port Customization Time Settings SIP Trunk Settings SMTP Mailbox Meeting Management Platform Extended Storage Cluster Settings
Service Configuration	NFS Storage Disk: 😰 Enable Support to use the external NFS storage disk for storing conference files, chat records, and recorded files, etc.
Advanced Settings	NFS IP Address:     The IP address must be an IPVT10 connectable address
Debug	* Folder Path:
	* NFS Version: V3 version V
	Save Cancel

Figure 28: Activate/Inactivate NFS Storage Disk

#### 4. Fill in the following information as required:

Parameters	Description	Example
NFS Extended Disk IP Address	Fill in the IP address of the NFS extended disk. This IP address must be reachable for the IPVT10 server. Otherwise, the setup will be failed.	
Storage Address	Fill in the file path which will be stored in the NFS extended disk, and the root directory is required.	e.g. /folder1/fo lder2
NFS Version	The currently installed system version of NFS is V3 or V4, users need to select the actual version of NFS. Otherwise, the negotiation between IPVT10 and NFS will be failed.	

#### Table 17: Extended Disk (NFS) Parameters

5. Click on "Apply Now" to apply the entire configurations of this page to the server. When the deployment is complete, it will take effect immediately.

#### Notes

- The current extended disk only supports NFS.
- When the extended disk is efficient, all recorded documents and meeting documents will be saved into the NFS extended disk. If the disk is full, it will be prompted.
- If the network of the NFS extended disk is abnormal, or due to some unexpected reasons, the IPVT10 server cannot connect with the NFS, it will also cause non-recording/non-saving issues.
- If the NFS extended disk is disabled, the previous saving files in the NFS extended disk will not be able to be read and downloaded.

## **Cluster Settings**

If users need multiple IPVT10 servers to create a cluster, users need to set one IPVT10 server as the cluster host server. Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Go to "Service configuration" and configure "Cluster Settings" options.
- 3. Select to check the option "Active cluster service" to activate the server cluster service, and use the IPVT10 as the cluster host server, as the figure is shown below:

S IPVT10	Service Configuration					English \vee 🚺 a	dmin 🗸
i≡ Status	< Network Settings	Port Customization	Time Settings	SIP Trunk Settings	SMTP Mailbox	Meeting Management Platform	Exten >
Service Configuration	• This device is a ho	ost server					
🔅 Advanced Settings	Note: To change to sla	ve server, please factory res rvice	et the device and rede	ploy.			
Aaintenance	<ol> <li>To add a slave server, ;</li> </ol>	Cluster Code Cluster Port	) ptUD Reg 3001	enerate	erver.		
	MAC address	Server IP a	idress	Region @ Settings	Connection	status Operation	
	Host (00:0b:82:d6:3	2:30) 192.168.5.6	51	Local	~ -	-	
				Save Cancel			
			Copyright © 2020	Grandstream Networks, Inc.	All rights reserved.		

Figure 29: Cluster Settings

- 4. Users need to click to save the configuration and click on "Apply Now" to set up the cluster host server. Then, the cluster host server IPVT10 will be activated.
- 5. In the slave servers, users need to input the "Cluster Code" (e.g. "Cv1R" in the screenshot above, case sensitive). Then, the connection between the cluster host server and the slave server will be established.

#### Notes

- If the cluster service is enabled and NAT is used, the cluster port 3001 needs to be configured for NAT.
- If users want to change the cluster host server to a slave server, users need to factory reset the IPVT10 device and set up the device as a slave server.
- It is recommended to connect up to 10 slave servers to maximize the performance of the IPVT10 host server.

#### **Slave Server Management**

Users could log in IPVT10 cluster host server to check the information of slave servers in the cluster, and block/delete the slave servers on the cluster host server IPVT10's Web UI.

Please, refer to the following steps:

1. Login IPVT10 Web UI.

2. Go to "Service configuration"  $\rightarrow$  "Cluster Settings", and users could check the information of the slave servers.

1 To add a slave server, please enter th	e host server's IP address and cluster code ( lqx2	) on the slave server.		
MAC address	Server IP address	Region	Connection status	Operation
50:98:4c:77:37:61	192.168.200.198	Local	Connected	Ç <u>o</u>
ac:1f:6b:65:9e:5e	192.168.200.30	Local	Disconnected	50 🗇

Figure 30: Check Slave Server's Information

3. Users could click on the IP address of the slave server, and log in to the Web UI of the slave server with the credentials.

4. Users could click on the icon 💀 to block the connection of the slave server. When the connection is blocked, the slave server IPVT10 cannot establish the connection with the cluster host server, and the cluster host server IPVT10 cannot negotiate with this slave server. Users could also click on icons to cancel blocking and recover the connection between the slave server and the host server.

5. If the connection between the slave server and the host server is lost, or the slave server is not available anymore, users could click on the icon 🝵 to delete the slave server.

6. Users need to click on the "Save" button to save the configuration and click on "Apply Now" to take effect on the device.

#### **Configure IPVT10 Server Region**

Users could manage the clustered IPVT10 servers in different regions. For example, if IPVT10 servers A, B, and C are assigned to region 1, and IPVT10 servers D, and E are assigned to region 2, the GVC devices or IPVideoTalk IDs which are assigned to region 1 can only use the resources in the IPVT10 servers which belong to region 1, and they cannot access to use the resources in region 2.

- 1. Login IPVT10 Web UI.
- 2. Go to "Service configuration"  $\rightarrow$  "Cluster Settings", and users could view the Host/Slave Servers List.
- 3. Users could change the region of the IPVT10 server under the "Region" menu by clicking the drop-down menu. The default setting is "Local". If users want to add a new region, please click on the "Settings" icon beside the "Region" menu option, as the following figure shows.

S IPVT10	Service Configuration	Service Configuration English 🗸 🚺 admin 🗸					
i⊟ Service Status	Network Settings Port Custom	ization Time Settings S	IP Trunk Settings SMTP Mailbox	Meeting Management Platform	Cluster Settings		
Service Configuration     Advanced Settings     Debug	This device is a host server Note: To change to slave server, pi     Activate cluster service     Co     To add a slave server, please enter	ease factory reset the device and redep luster Code  3MXO Rege Cluster Port  3001 the host server's IP address and cluster	oy. merate code ( 3MXO ) on the slave server.				
	MAC address	Server IP address	Region 🛞 Settings	Connection statu:	5 Operation		
	Host (ac:1f:6b:62:5d:f4)	192.168.126.242	a	~ -	-		
	Slave (00:0b:82:d8:eb:0a)	192.168.200.210	Local	<ul> <li>✓ Connected</li> </ul>	Block		
	Slave (18:66:da:f0:30:2c)	183.136.237.42	Local	<ul> <li>✓ Disconnected</li> </ul>	Block Delete		
	Slave (18:66:da:f8:84:38)	192.168.200.202	Local	<ul> <li>✓ Disconnected</li> </ul>	Cancel block		
	Slave (ac:1f:6b:65:9e:5e)	192.168.200.95	test	<ul> <li>✓ Disconnected</li> </ul>	Block Delete		
	Slave (ac:1f:6b:6d:ee:3c)	192.168.126.243	jyli-test	<ul> <li>✓ Disconnected</li> </ul>	Block Delete		
			Save Cancel				

#### Figure 31: IPVT10 Server Region

4. Users need to click on the "Save" button to save the configuration and click on "Apply Now" to take effect on the device.

**Note:** If there is a region that does not include any IPVT10 server, all the scheduled meetings in this region cannot be started, and there will be a prompt to indicate to the user that all scheduled meetings in this region will be moved to another region. As shown in the following figure:

There is no server a	vailable under the 1 Regions of	of <b>"a"</b> . Please trar	×
scheduled meetings	and 12 GVC devices under th	iese regions to ai	nother region:
e		Cancel	Continue to save

Figure 32: Move Scheduled Meetings Prompt

## **Region Management**

Users could add multiple new regions and change the names of the regions.

- 1. Login IPVT10 Web UI.
- 2. Go to "Service configuration" → "Cluster Settings", and click the icon esides the Host/Slave Servers List, users could see the prompt as the figure shows below:

S IPVT10	Service Configuration English 🗸 🗍 🕕					English \vee 🗍 🜒 admin 🗸	
	Network Settings Port Co	ustomization Time S	Settings SIP Trunk S	Settings SMTP Mail	box Meeting Ma	inagement Platform	Cluster Settings
	• This device is a ho		RegionMan	agement		×	
	Note: To change to sla	Cluster servers are divided int nave meetings in region A.	o multiple regions for mana	gement. For example, GVC d	Jevices in region A can on	by	
		Region ID	Region	C	onnected servers		
	To add a clave server in	1	Local	3			
	MAC address	2	test	1		nection status	Operation
	Host (ac:1f:6b:62:5c	3	a	0			-
	Slave (00:0b:82:d8:6	4	jyli-test	1		mnected	Block
	Slave (18:66:da:f0:3	H Add				sconnected	
	Slave (18:66:da:f8:8				Cancel Save	sconnected	Cancel block
	Slave (ac:1f:6b:65:9e:5e)	192.168.		test			
	Slave (ac:1f:6b:6d:ee:3c)	192.168.	126.243	jyli-test			
				Save Car	ncel		

Figure 33: Region Management

#### Notes

- The connected IPVT10 servers amount for each region in the list is indicating that the available IPVT10 servers amount, it does not include the blocked servers.
- Users could add new regions, input the region name, and click "Save" button to save the regions.
- Users could also update the region name for a certain region and click "Save" button to save the region name.
- Users need to click on "Apply Now" to effect on the device.

Users could generate a new cluster code in the cluster, and all slave servers cannot connect with the cluster host server without the new cluster code.

Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Go to "Service configuration"  $\rightarrow$  "Cluster Settings" and click on the button Regenerate to gener

to generate a new cluster

- code for the cluster service.
- 3. Users need to click on the "Save" button to save the configuration and click on "Apply Now" to affect the device.

Then, all slave servers cannot connect with the cluster host server without the new cluster code. Users need to input the cluster code again in the slave servers to recover the connection with the cluster host server.

## **Configure Slave Server**

## **Network Settings**

#### **Options Descriptions**

Parameters	Description
Network Adapter	Configures Network Adapter's parameters, which requires establishing the connection with the host server.
IPv4 Address	Configures the IP Address for IPVideoTalk Portal.
Subnet Mask	Configures the Subnet Mask.
Gateway	Configures the default Gateway.
Preferred DNS	Set the Preferred DNS.
Alternative DNS	Set the Alternative DNS.
NAT	Enable/Disable NAT and set the NAT IP address.

Table 18: Parameters Descriptions

#### Note

Ethernet port 1 is used to connect user's PC with the IPVT10 server to login the configuration page of the device. Users need to connect the Internet with the **Ethernet port 2** on the IPVT10 server.

Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Go to "Service configuration"  $\rightarrow$  and "Network Settings", as the figure is shown below:

S IPVT10	Service Configuration	English $\checkmark$ (1) admin $\checkmark$
i≡ Service Status	Network Settings Port Customization Time Settings Cluster Settings	
Service Configuration	When deploying slave, "Ethernet Interface 2" on the device must be connected to the network switch. 0 Diagram	
🗘 Advanced Settings	* IPv4 Address (): 183.136.237.42	
Debug	* Subnet Mask: 255.255.240	
	* Gateway: 183:136:237:33	
	* Preferred DNS: 114.114.114.114	
	Alternate DNS:	
	NAT: 🗌 Enable	
	Save Cancel	

Figure 34: Service IP Address Config – Network Adapter

3. Users need to configure "IPv4 Address", "Subnet Mask", "Gateway", "Preferred DNS", and "Alternative DNS" (optional) for the network adapter.

#### Note

- Please make sure that the IP address is available to reach the cluster host server. This IP address could be an internal IP address or an external IP address.
- Please make sure that there should be no conflict in the IP address. Otherwise, the service will be unavailable.
- 4. (Optional) If the selected adapter is an external network adapter, users could configure static NAT for the IPVT10.

#### Note

NAT could translate the private IP address of the internal network into a public IP address, so that an external conference client can access the server of the internal network through the public network.

Continue to fill in the other configuration options. For the first deployment, users must fill in all required fields.

Users need to click to save the configuration and click on "Apply Now" to apply the entire configurations of this page to the server. When the deployment is complete, it will take effect immediately.

#### Note

- When the deployment is complete, users need to check whether all network interfaces of the server are all connected.
- Users need to connect the Internet with the Ethernet port 2 on the IPVT10 slave server so that the connection could be established with the cluster host server.
- If users modify the IP address of the server during the conferences, it may cause abnormal issues for the ongoing conferences, and the scheduled conferences will be inaccessible.
- When users modify the parameters of the server, the server will restart the service automatically.

#### **Configure Service NAT Interfaces**

(Optional) users could customize the service port. Our default service ports are shown as following below:

Server	Protoc	Default	Descriptions
Components	ol	Port	
Media Server	TCP/UD P	5062	External control port

Media Server	UDP	60000- 65000	Port range of media streams: <b>Requirements:</b> Port starting should not be lower than 1024, the range is not less than 3000.
--------------	-----	-----------------	--

Table 19: Service Port Configuration

Please, refer to the following steps:

- 1. Login IPVT10 Web Management UI.
- 2. Click on the "Service Configuration" on the left side of the UI and select "Port Customization", users will see the page below:

S IPVT10	Service Configuration				English $\vee$ 🚺 admin $\vee$
i≡ Service Status	Network Settings Port Customization	Time Settings	Cluster Settings		
G Service Configuration	Note: You can't set the custom ports as internal po	rts 🕕 View details			
Advanced Settings	Server components	Protocol	Port	Description	
🗎 Debug	Media server	TCP/UDP	5062	External control port	
	Media server	UDP	60000 ~ 65000	Media flow port range 📀	
			Save Cancel		

Figure 35: Service Port Configuration

3. Users could customize the service ports based on the requirements.

4. When users finish updating the ports, users need to click to save the configuration and click on the button "**Deploy Now**" to confirm the customized service ports. The server will reboot to apply the changes.

#### Note

- The customized service ports cannot be duplicated.
- The ports below cannot be set as customized service ports: "25,80,443, 3000, 3306, 5060,5061, 5070, 5071,5072, 5080, 6379, 6380, 6381, 8006, 8008, 8010, 8012, 8080, 8081, 8083, 9080, 80000, 26222".
- If the service ports are set incorrectly, users cannot use the corresponding services normally.

## **Time Configuration**

Users could check the current time and time-zone of the server and correct it at any time to avoid the meeting time inaccurate or cannot be launched issues.

Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Service Configuration", and configure the "Time Settings" options, as the figure is shown below:

S IPVT10	Service Configuration				
i≡ Service Status	Network Settings Port Customization				
G Service Configuration	NTP Server:	Synchronize NTP server time			
Advanced Settings		pool.ntp.org			
Debug	Date:	2018-08-24			
	Time(UTC):	09:19:14			
			Save		

Figure 36: Time Settings

4. Users could set whether to synchronize the SNTP server time. If there is no available SNTP server, users could adjust the date and time manually.

5. Users need to click to save the configuration and click on "Apply Now" to update the server time immediately.

#### **Cluster Settings**

Users need to input the IP address of the cluster host server and the cluster code in the slave server to finish the configuration.

Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Service Configuration"  $\rightarrow$  "Cluster Settings", as the figure is shown below:

S IPVT10	Service Configuration	English 🗸   🖲 admin 🗸						
i⊟ Service Status	Network Settings Port Customization Time Settings Cluster Settings							
Service Configuration	• This device is a slave server							
Advanced Settings	Note: To change to host server, please factory reset the device and redeploy.  Please make sure it can access host server network.	Note: To thange to host server, please factory reset the device and redeptoy.  Please make sure it can access Not server network.						
Debug	* Host Server Address 🔘 101.71.248.140	Connected to the host server						
	* Cluster Code 💿 LUGE							
		Sive Cancel						

Figure 37: Cluster Settings

3. Input the IP address of the cluster host server. This IP address must be a reachable address for the slave server.

4. Input the Cluster Code in the slave server (case sensitive).

5. Users need to click to save the configuration and click on "Apply Now" to update the server time immediately.

## **Advanced Settings**

## **Alarm Email Setup**

Users can configure and enable Alarm Email. The alarm email includes high CPU usage, HDD abnormal, slave machine connection abnormal, system reboot, system upgrade, admin login failed continuously, password changed, etc.

- 1. Login IPVT10 Web UI.
- 2. Click on "Advanced Settings" and go to "General Settings".
- 3. Click to enable "Send Alarm Email" and input the receiver email addresses, multiple email addresses are allowed.
- 4. Click "Save" to save the setting. Alarm Emails would be sent to the subscriber's email addresses once alarm events happened

S IPVT10	Advanced Settings	English \vee 🚺 admin 🗸
i≣ Status	General Settings Modify Password Firewall Settings Fail2Ban License Management	
다. Service Configuration	Alert email settings	
Advanced Settings	Sytem usage monitored, alert email will send out if alert occurs. View alert details	
Maintenance	Send alert email: 🙋 Enable	
	Email subscriber:	
	Add more email subscribers: 🚯	
	Save	

#### Figure 38: Alarm Email Setup

## **Enable/Disable SSH**

If your IPVT10 server encounters any failure, you may need to contact Grandstream technical support to troubleshoot the problem. You can enable SSH service on the IPVT10 server's Web UI, to allow our technical support to access the IPVT10 server remotely for troubleshooting purposes.

#### Note

To ensure IPVT10 server security, users currently do not have permission to access IPVT10 server through SSH.

Please refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Advanced Settings" and go to "General Settings".
- 3. The default SSH port is 26222, and users could change the SSH port by editing the port number directly.
- 4. Click on "Enable SSH".
- 5. If users want to disable the SSH service, please click on the button "Disable SSH".

#### **Access Restrictions**

Users can set a white list to only allow specific IP addresses to access the deployment management page and the meeting management platform. Please refer to the following steps to enable this feature.:

- 1. Login IPVT10 Web UI.
- 2. Click on "Advanced Settings" and go to "Access Restriction".
- 3. Enable this option.
- 4. Then, enter multiple IP addresses and IP segments on the white list, such as 192.168.1.1/24. This is a mandatory option.
- 5. Click the "Save" button to complete the setup.

#### Note

When this feature is enabled, only the IP addresses on the white list can access the deployment page and meeting management page. While other IP addresses cannot access both those pages. But any given IP will have access the meeting URL normally.

S IPVT10	Advanced Settings	English $\vee$ 🗍 admin $\vee$
i≡ Status	General Settings Modify Password Access Restriction Firewall Settings Fail28an License Management	
Configuration	Access Restriction: 🗌 Enable	
Advanced Settings	When enabled, only the IP address in the white los can access the WebPortal login page and the deploy page	
Aaintenance	White List: 192.168.120.200	
	200 203 100 228 Control Add more whitelists	
	Save	

Figure 39: Access Restrictions

## **Firewall Settings**

Firewall configuration is provided to protect the device and system from malicious attacks by processing different data passing through the system properly and ensuring bandwidth and security.

In "Advanced Settings", go to "Firewall" web GUI, user can see the Firewall Config page to set up and adjust the related parameters accordingly.

S IPVT10	Advanced Settings	English \vee 🚺 admin 🗸
i≡ Status	General Settings Modify Password Firewall Settings Fall2Ban License Management	
Service Configuration	Enable Ping Defense 💿 📄 Internal network 💿 External network	
Advanced Settings	Enable Syn-Rood Defense 💿 📄 Internal network	
B Maintenance	Enable Ping-of-Death Defense 💿 📄 Internal network	
	Save	

Figure 40: IPVT10 Firewall settings

Parameters	Description
Enable Ping Defense	If enabled, no echo response to the "PING" ICMP message. Default disabled. If IPVT10 has internal and external two IP addresses, this can be configured separately and independently.
Enable Syn-Flood Defense	Enable to protect of the device from flood attacks or DDoS attacks . Default disabled. If IPVT10 has internal and external two IP addresses, this can be configured separately and independently.
Enable Ping-Of-Death Defense	Enabled to protect the device from Ping of Death (PoD) flood DDoS attack. Default disabled. If IPVT10 has internal and external two IP addresses, this can be configured separately and independently.

Table 20: IPVT10 Firewall settings

## Fail2Ban

Fail2Ban feature will discover and block authentication errors that occur during SIP registration, authentication, and access connections. If a host fails and exceeds the maximum allowed value (named as the matching threshold) within the specified time, IPVT10 will mark out and block the host for a period. This feature helps to detect and prevent violent attacks on the IPVT conferencing system in a timely manner.

S IPVT10	Advanced Settings			English 🗸 🚺 admin
	General Settings Modify Password Firew	all Settings Fail2Ban License Management		
	Settings			
Advanced Settings	Fail2Ban:	Z Enable		
Maintenance	<ul> <li>Global Settings</li> </ul>			
	* Banned Duration (second) 🕥	600	Please enter the number between 0 - 9999999	
	* Max Retry Duration (seconds) 💿	500	Please enter the number between 1 - 9999999	
	* Max Retry (second) 💿	5	Please enter the number between 1 - 9999999	
	Fail2Ban whitelist (s) 💿	127.0.0.1	) 🗢	
		Add more whitelis	s 🕒	
	Local Settings			
	SIP Server:			
	Listening port:	5060/5062(TCP/0DP) 5061(TLS)	0	
	I ogin to conference management page:	3	Please enter the number between 1 - 9999999	
	Login to conterence management page.			
		Save		
	Blacklist			
	Banned Type	IP	Banned Time/Duration	Operation
		No Data	1	

Figure 41: IPVT10 Fail2Ban feature

Parameters	Description
Settings	
Enable	Click to enable Fail2Ban. Default settings are disabled. If enabled, it will be effective for SIP Server and the login to the Conference Management Platform.
Global Settings	
Banned Duration	Configure host forbidden timespan by the firewall, in seconds.
(seconds)	Default value 300 seconds (5 minutes). the host will be always banned.
Max Retry Duration (seconds)	Within this duration (in seconds), if a host exceeds the max times of retry as defined in "Max Retry", the host will be banned. The default setting is 600.
Max retry	Configure the number of authentication failures during "Max Retry Duration" before the host is banned. The default setting is 5.
Fail2Ban Whitelist	Set the Whitelist via IP address or a DNS domain name. Fail2Ban will not block hosts in the Whitelist. A maximum of 20 hosts are allowed in the Whitelist.
Local Settings	
	Enable to set up an individual matching threshold for the "SIP Server". Default is disabled.
	Note:
SIF Server	Listening Port is <b>Not</b> configurable.
	Current supported ports: 780 (HTTP) 7443 (HTTPS/WSS)

Login to conference management page	Allows login to the Conference management page. Default is disabled. Note: Listening Port is Not configurable. Currently supported ports: 5060/5062 (TCP/UDP) and 5061 (TLS)
Max retry	When the number of failed login attempts from an IP address exceeds the Max retry number, that IP address will be banned from accessing the Web GUI.
Settings	
Blacklist	Users will be able to view the IPs that have been blocked by IPVT10.

Table 21: Fail2Ban settings

## **License Management**

## **View License Information**

Users could view the license information of the IPVT10 on its Web UI.

Please refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Advanced Settings", and go to "License Management", users could check the current license information details as the screenshot shows below:

S IPVT10	Advanced Settings	English $\checkmark$ 🚺 admin $\checkmark$
i⊟ Status	General Settings Modify Password Firewall Settings Fail2Ban License Management	
🗔 Service Configuration	Current License:	
Advanced Settings	Max Attendees: 300 Max Video feeds: 120	
Maintenance	Validity Date: unlimited	
	Change license	



#### Note

If the current license is on trial, the "Trial" tag will be displayed.

## **Update License**

Users could update the license of the IPVT10 server on its Web UI.

Please refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Advanced Settings" and go to the "License management" menu.
- 3. Click on the "Change License" option.
- 4. Upload the new license file into the IPVT10 server.



Figure 43: Upload License Key File

5. When finish uploading, users need to click on "Active Now" to apply for the new license on the IPVT10 server.

#### Note

If the current license has not expired, and the user wants to upload a license, the current license will be expired. Users cannot use the previous license to activate any IPVT10 device even though the license is not expired.

## Maintenance

## Upgrade

Users need to take into consideration the following notes when upgrading IPVT10:

- During the upgrading service, the IPVT10 service will be suspended, and users cannot log in to the Conference Management Platform or start meetings.
- It is suggested to upgrade the device when there are no scheduled or activated meetings during the period.
- It is suggested to download the upgrading firmware from Grandstream's official website or use the firmware from Grandstream's designated technical support.

Please refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Maintenance"  $\rightarrow$  "Upgrade".
- 3. Click on "Upgrade".

ø	IPVT10	Maintenance	English $\checkmark$ ( <b>①</b> admin $\checkmark$
≔		Upgrade Reboot/Factory Reset Logs Packet Capture Traceroute Ping Operation log	
Ç6		System version 0.3.4.1	
¢		Please obtain the upgrade package from the official site Wannies: No IPVT service will be provided during the upgrade, and the user can't log into invideotalk com or start a meeting	
Þ	Maintenance	Upgrade	

Figure 44: Upgrade Service

4. Select the upgrading firmware from the local PC and upload the firmware to the device.

5. When users click to confirm upgrading, the device will process upgrading the firmware. This process may take several minutes.

6. When the upgrading is complete, the server will restart the service automatically.

## **Factory Reset**

When users restore the device to factory reset, all the data in the database server will be erased, including the meetings data and user's data, as all the configurations in the server will be erased, and restored to the factory default configuration.

Please, refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Maintenance" → "Reboot/Factory Reset".
- 3. Click on "Factory Reset".
- 4. The system will pop up a prompt to ask the users to confirm "Are you sure to factory reset the device?", and users could click on "Yes" to start to factory reset the device. All the data will be erased, and the service will be restarted. Users could also select to clear all user data or remain the data.
  - If users only clear the configurations in the IPVT10, and remain the user's data, all of the settings will be recovered to default settings, and all of the logcat will be deleted, the user's data such as account information, scheduled meetings, meeting histories, and recording files will remain.
  - If the user selects to clear all user data, all the configurations and user data will be erased from the IPVT10 server.

		Warning	×
After res	toring to fact the server	ory settings, current configur will be cleared. Continue? er data and storage space.	ations of

Figure 45: Clear Data

## Reboot

Users could reboot the IPVT10 server on its Web UI. Please refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on "Maintenance "→ "Reboot/Factory Reset".
- 3. Click on "Reboot" to reboot the IPVT10 server, and the current meetings which are in progress will be terminated.

## System Logs

Users could check and download the logs of each component from the IPVT10 server (e.g. MCU/SIP server/WebRTC/Conference Management Platform).

Please refer to the following steps:

- 1. Login IPVT10 Web UI.
- 2. Click on the "Maintenance"  $\rightarrow$  "Logs" menu, as the figure shows below:

S IPVT10	Maintenance	English $\checkmark$ 🚺 admin $\checkmark$
i≣ Status	Upgrade Reboot/Factory Reset Logs Packet Capture Traceroute Ping Operation log	
Configuration	Operation logs are saved in local storage for 30 days and can be downloaded for troubleshooting purposes.	
🛱 Advanced Settings	Date(UTC) 2019-06-05	
Maintenance	Download logs	

Figure 46: Download System Logs

3. Select the date of generating the logs. Users could select the date up to the past 30 days.

4. Click on "Download logs", and the logs which are generated on that date will be downloaded to the user's PC.

## **Packet Capture**

Users could capture the traces in the IPVT10 server to troubleshoot the problems.

Please refer to the following steps:

1. Login IPVT10 Web UI.

2. Click on "Maintenance"  $\rightarrow$  and "Packet capture", as the figure shows:

S IPVT10	Maintenance English $\checkmark$ ( ) admin $\checkmark$
i⊟ Status	Upgrade Reboot/Factory Reset Logs Packet Capture Traceroute Ping Operation log
G Service Configuration	If the device is abnormal, please capture packets for all services for troubleshooting purpose.
🔅 Advanced Settings	► Packet capture
Maintenance	2019-6-5 09:34:39 2019-06-05 093435.pcag 36kb 📋
	2019-6-5 09:34:33 2019-06-05 093430.pcap 46kb 📋

Figure 47: Packet Capture

3. Click on the "Packet capture" option to start capturing in the IPVT10 server.

4. Click on the icon II Stop capturing to stop capturing the trace, and the trace file will be shown up on the menu below.

5. Click on the file name, such as <u>2018-08-22 100130.pcap</u> to download the trace to the user's PC. If the traces are too many items in the IPVT10 server, the user could click on the icon **•** to delete a certain trace file.

## Traceroute

Users could perform a traceroute by entering the target host in the hostname or IP address. Then press the "Start" button. The output result will dynamically display in the window below:

S IPVT10	Maintenance	English $\lor$ (1) admin $\lor$
i⊟ Status	Upgrade Reboot/Factory Reset Logs Packet Capture Traceroute Ping Operation log	
Service Configuration	* Target Host or IP: 8.8.8.8	
Advanced Settings		
Maintenance		
	3 172 20.5.1 (172 20.5.1) 31.575 ms 27.568 ms 28.709 ms 28.743 ms 4**** 5 **** 6 3027,11.102.eq.hk.lptp.net (220.158.132.67) 32.478 ms 32.644 ms 31.085 ms 7 **** 8 15169 nkg.equinix.com (36.255.56.12) 33.843 ms 34.046 ms 35.186 ms 33.739 ms 9 108.170.241.3 (108.170.241.33) 38.852 ms 38.993 ms 108.170.241.3 (108.170.241.1) 35.442 ms 37.319 ms 10 209.85.142.249 (209.85.142.249) 38.285 ms 108.170.235.11 (108.170.245.13) ans 209.85.240.9 (209.85.240.9) 37.723 ms 216.239.62.57 (216.239.62.57) 36.592 ms 11 google-public-dns-a.google.com (8.8.8.8) 35.258 ms 37.669 ms 38.757 ms 37.290 ms	



#### Ping

Enter the target host in hostname or IP address. Then press the "Start" button. The output result will dynamically display in the window below.



Figure 49: Ping

## **Operation Logs**

Users can view all the operation logs on the "Maintenance" page. All the operations on the service platform are displayed here, such as login, deployment service, restart service, factory reset, firmware upgrade, license modification, packet capture, etc.

S IPVT10	Maintenance		English $\lor$ 🚺 admin $\lor$
i⊟ Status	Upgrade Reboot/Factory Reset Logs Packet	Capture Traceroute Ping Operation log	
두호 Service Configuration			Please input operating content for searching Q
🔅 Advanced Settings	Operation time (UTC)	Content	Resource IP
Maintenance	2019-06-05 09:13:03	Login successfully	192.168.127.116
	2019-06-03 10:03:39	Login successfully	192.168.126.172
	2019-06-03 10:03:34	Logout	192.168.126.172
	2019-06-03 08:34:25	Login successfully	192.168.126.172
	2019-05-31 03:30:35	Login successfully	192.168.126.172
	2019-05-31 03:30:31	Login failed	192.168.126.172
	2019-05-31 03:30:30	Login failed	192.168.126.172
	2019-05-31 02:52:46	Login successfully	192.168.126.149
	2019-05-30 06:41:36	Logout	192.168.126.172
	2019-05-30 01:30:43	Login successfully	192.168.126.172
	Total 63	< 1 2 3 4 5 6 7 >	10/page ~
		Copyright © 2019 Grandstream Networks, Inc. All rights reserved.	

Figure 50: Operation Logs

# **TYPICAL NETWORK SOLUTIONS**

Users could select the network solutions based on the actual requirements. There are several scenarios:

## **Scenario 1: Internal Network**

The server is deployed on the internal network. The users use the service via an internal network. Users need to configure the internal network IP address for the server. If users register accounts and start conferences on the internal network, and other participants are all on the internal network, users could only deploy the server on the internal network, and only configure the internal network adapter. For example, users could configure this server in private networks.



Figure 51: Network Deployment Diagram – Internal

S IPVT10	Deployment Services	English 🗸 👔 admin 🛛 🗗 Sign out
Co Deployment Services	✓ Service IP Address Config	
Advanced Settings	Internal network adapter Please make sure 'network interface 1' is connected to the network. Diagram	
	* IPv4 Address: 192.168.100.100	
	* Subnet Mask: 255.255.255.0	
	* Gateway: 192.168.100.1	
	* Preferred DNS: 8.8.8	
	Alternate DNS:	
	External network adaptor	
	Routing Rules Please specify a network adapter to access the destination IP address. When using two network adapters, configure one of the	hem first.

Figure 52: Configure Internal Network Adapter

## **Scenario 2: External Network**

The server is deployed on the external network. Users could access the server via the public network. Users need to configure the external network IP address in the server. If users register accounts and start conferences on the public network, and other participants are all on the public network, users could only deploy the server on the public network and configure the public network adapter.



Figure 53: Network Deployment Diagram – External

S IPVT10	Deployment Services	English \vee 🕕 admin 🕒 Sign ou
Co Deployment Services	✓ Service IP Address Config	
Advanced Settings	Internal network adapter	
	External network adaptor Please make sure 'network interface 2' is connected to the network.  O Diagram	
	* IPv4 Address: 115.88.134.125	
	* Subnet Mask: 255.255.255.0	
	* Gateway: 115.88.134.1	
	* Preferred DNS: 8.8.8	
	Alternate DNS:	
	NAT: C Enable	
	Routing Rules Please specify a network adapter to access the destination IP address. When using two network adapters, configure one of them first.	

Figure 54: Configure External Network Adapter

## Scenario 3: External Users to Internal Server

The server is deployed on the internal network for external users. The users need to use the service via the public network. In this case, users need to configure the external network IP address and static NAT in the server. If the server is deployed on the internal network, and all participants need to use the service via a public network, users need to configure the static NAT to ensure that certain public networks can access the server. Users could configure the External Network Adapter and NAT to complete the configuration. This deployment does not support users to access the server directly via the internal network. Otherwise, it may cause abnormal issues for the conferences.



Figure 55: Network Deployment Diagram – External Users to Internal Server

S IPVT10	Deployment Services	English \vee 🕕 admin 🕒 Sign ou
Co Deployment Services		
Advanced Settings	Internal network adapter	
	External network adaptor     Please make sure 'network interface 2' is connected to the network.     O Diagram	
	* IPv4 Address: 192.168.100.100	
	* Subnet Mask: 255.255.255.0	
	* Gateway: 192.168.100.1	
	Preferred DNS:     8.8.8.8	
	Alternate DNS:	
	NAT: 🛃 Enable	
	208.67.12.12	
	Routing Rules Please specify a network adapter to access the destination IP address. When using two network adapters, configure one of them first.	

Figure 56: Configure External Network Adapter and NAT

## Scenario 4: Internal Network and External Network

The server is deployed on the internal network. The users could access and use the service via either an internal network or an external network. In this case, users need to configure both the internal network and external network in the server and routing rules. Users need to configure both Internal Network Adapter and External Network Adapter.



Figure 57: Network Deployment Diagram – Internal Network and External Network

S IPVT10	Deployment Services			I	énglish 🗸 🕕 a	admin 🛛 🗗 Sig	gn o
Deployment Services							
🔅 Advanced Settings	Internal network adapter Please make sure 'network interface 1' is connected in the sure 'network' interface 1' is c	to the network. 🚯 Diagram					
	* IPv4 Address:	192.168.100.100					
	* Subnet Mask:	255.255.255.0					
	* Gateway:	192.168.100.1					
	* Preferred DNS:	8.8.8.8					
	Alternate DNS:						
	External network adaptor						
	Please make sure 'network interface 2' is connected in	to the network. 🜖 Diagram					
	* IPv4 Address:	115.88.134.125					
	* Subnet Mask:	255.255.255.0					
	* Gateway:	115.88.134.1					
	* Preferred DNS:	8.8.8.8					
	Alternate DNS:						
	NAT:	Enable					
	Routing Rules Please specify a network adapter to access the destin Add	nation IP address. When using two n	etwork adapters, configure one o	of them first.			
	Destination IP address Subnet	mask	Gateway	Network adapter		Operation	
	192.168.0.0 255.25	5.0.0	192.168.100.1	Internal network adapt	ter	2	

Figure 58: Configure External Network Adapter and Internal Network Adapter

## Scenario 5: Internal Network and some External Users

The server is deployed on the internal network. Users could access and use the service via an internal network and limit certain public IP addresses to be able to access the server. In this case, users must configure 2 networks (An internal network and an external network with NAT), and the routing rules. The server's private network address can be configured via static NAT to allow certain external users to access the server.



Figure 59: Network Deployment Diagram – Internal Network and Some External Users

S IPVT10	Deployment Services		English 🗸 🚺	admin 🕒 Sign o
Deployment Services	Internal network adapter			
Advanced Centers	Please make sure 'network interface 1' is connected	to the network. ( Diagram		
Set Advanced Setungs	* IPv4 Address:	192.168.100.100		
	* Subnet Mask:	255.255.255.0		
	* Gateway:	192.168.100.1		
	* Preferred DNS:	8.8.8.8		
	Alternate DNS:			
	External network adaptor Please make sure 'network interface 2' is connected	to the network. 🔹 Diagram		
	* IPv4 Address:	192.168.200.100		
	* Subnet Mask:	255.255.255.0		
	* Gateway:	192.168.200.1		
	* Preferred DNS:	8.8.8.8		
	Alternate DNS:			
	NAT:	Enable		
		208.67.12.12		
	Routing Rules     Please specify a network adapter to access the destin     Add	nation IP address. When using two network adapters, configure (	ine of them first.	
	Destination IP address Subnet	mask Gateway	Network adapter	Operation
	192.168.0.0 255.25	5.0.0 192.168.100.1	Internal network adapter	2

Figure 60: Configure External Network Adapter and Internal Network Adapter – II

# **CONFIGURE GVC32XX CONFERENCE CLIENTS**

## **Configure Service IP Address**

Before a conference starts on the GVC32xx client, the user must configure the IP address of the IPVideoTalk server. Please, refer to the following steps for the IP address of IPVideoTalk.

- 1. Start the GVC32xx device, and ensure to connect the GVC32xx client to the network correctly
- 2. Click on the IPVideoTalk application.
- 3. Select the "Settings" icon [ 🚳 ], and go to the configuration as shown below:
- 4. Input the "IPVideoTalk Server" address which is the IP address of the IPVT10 server.

192.1	68.5.176 (a) Account (not configured)				🖺 🗘 05:44
	Settings	🛑 Default account	Save	Cancel	
	Account active			$\subset$	
	Display name				
	Number				101
	Personal room No.			1(	00101
	Personal room password		Please	enter 0-8 di	gits
	Auto answer		No		4
	Server configuration				
	IPVideoTalk Server	http://192.1	68.5.61	Restore the de	efault
	Account information				

Figure 61: Configure Service IP Address

5. Click to save the configuration, and the device will connect to the IPVideoTalk server automatically. The device will be automatically assigned an IPVideoTalk ID, starting from "100". If the IPVideoTalk ID status icon turns green, that means the account could be used normally.

# **START CONFERENCES**

When the server is configured, users could use the conference client to start conferences.

1. Input the domain name or IP address of the IPVT10 server in the browser.

S IPVT10	Service Configuration	English $\checkmark$ 🚺 admin $\checkmark$
⋮Ξ Service Status	Network Settings Port Customization Time Settings SIP Trunk Settings SMTP mailbox N	Aeeting Management Platform Cluster Settings
<b>G</b> Service Configuration	Native domain name: (Optional)	
<ul> <li>Advanced Settings</li> <li>Debug</li> </ul>	Internal network adapter Please make sure 'Ethernet Interface 1' is connected to the network. Diagram	
	* IPv4 Address: 192.168.126.242 * Subnet Mask: 255.255.0	
	* Gateway: 192.168.126.1	
	* Preferred DNS: 8.8.8	
	Alternate DNS:	
	External network adaptor     Please make sure 'Ethernet Interface 2' is connected to the network.     O Diagram	
	* IPv4 Address: 101.71.248.139	
	* Subnet Mask: 255.255.255.248	
	* Gateway: 101.71.248.137	
	* Preferred DNS: 221.12.1.227	
	Alternate DNS: 221 12 33 227	•

Figure 62: Service Configuration

2. log in to the Conference Management Platform with the credentials (The default username and password are admin/admin, and users could configure the new username/password on IPVT10's Web UI).

Co IPVideoTalk		Join Meeting 🕐 Help	
	IPVideoTalk         Account or Email         Password         Password         Cign in		

Figure 63: Login Conference Management Platform

3. Users could schedule meetings and check the meeting histories on the Meeting Management Platform, as the screenshot shows below:

PVideoTalk	Meetings	Recordings Contacts Devices Statistics	Çठ Server Maintenance admin ◄
Meet Now +			Enter Subject/Meeting ID/Plan/Room Device
Schedule Meeting +	Today	106's Personal Room	👷 in process
Upcoming 4 History 15	06:01PM   07:01PM	Room Device:         106 -IPVideoTalk Enterprise           Participants:         0           Meeting ID:         100106           Meeting URL:         https://192.168.126.242/100106, https://101.71.248.139/100106	
	Today 06:01PM ] 07:01PM	IPVideotalk meeting Room Device: PC Browser ◆ View all meetings associated with this plan Participants: 0 Meeting ID: 250742 Meeting URL: https://101.71.248.139/250742	Copy meeting invitation
	Today 06:39PM 07:39PM	101's Personal Room           Room Device:         101-iPVideoTalik Enterprise           Participants:         0           Meeting ID:         100101           Meeting URL:         https://192.168.126.242/100101, https://101.71.248.139/100101	Le in process
		≪ < 1 /1 ⊳ ⇒	20 v items
		©2018 Company, Inc. All rights reserved. English 💌	

Figure 64: Manage Meeting Histories

For more information, users could go to Grandstream's official website https://www.grandstream.com/support and download the User Guide of IPVT10 to get more details.

# CHANGELOG

This section documents significant changes from previous versions of the Administration Guide for IPVT10. Only major new features or major document updates are listed here. Minor updates for corrections or editing are not documented here. Users could log in to the product page to get more firmware update logs:

#### https://www.grandstream.com/support/firmware/

#### Firmware Version 1.0.6.14

• No Major changes.

#### Firmware Version 1.0.6.13

• No major changes.

#### Firmware Version 1.0.6.10

• No Major Changes.

#### Firmware Version 1.0.6.9

• No Major Changes.

#### Firmware Version 1.0.6.8

- Added support for a new Video Mode option [Video Mode]
- Added support for a new Video Stream option [Video Stream]
- Support setting IVR to Russian Language [Configuring Conference Management Platform Information]

#### Firmware Version 1.0.6.5

- Supported Spanish IVR if the user changes the default language to Spanish on the management platform. [Configuring Conference Management Platform Information]
- Supported to allow users to configure the dynamic domain name in Network Settings. [Network Settings]

#### Firmware Version 1.0.5.26

• Supported to custom the host code length of the meeting to 4 – 32 digits. [Length of Host Code]

- Added access restriction feature. The user can add the IP addresses to the white list, and only the IP addresses on the white list can access the deployment management page and meeting management page. [Access Restrictions]
- Add option to "Ignore certificate" that allows the mailbox to send mail if the SMTP server is a self-signed certificate.
   [Ignore certificate]

#### Firmware Version 1.0.5.20

• No Major Changes.

#### Firmware Version 1.0.5.17

• Added ability to configure video bitrate type and video bit rate.

#### Firmware Version 1.0.5.12

• No Major Changes.

#### Firmware Version 1.0.5.4

• No Major Changes.

#### Firmware Version 1.0.4.12

• Added support for Google Speech Recognition service. [Third Party Speech Recognition Service Configuration]

#### Firmware Version 1.0.3.24

- Added support for alarm notification email configuration. [Alarm Email Setup]
- Added support for static defense settings.
- Added support for operation logs viewing. [Operation Logs]
- Added support for the Fail2Ban feature.

#### Firmware Version 1.0.3.17

• Added support for Ping and Traceroute troubleshooting tools.

#### Firmware Version 1.0.3.13

- Improve the meeting capacity: Support up to 50 meetings of two parties, or 10 meetings of three parties. Each meeting layout occupies 1 meeting resource. [PRODUCT OVERVIEW]
- Add support H.323. [IPVT10 Technical Specifications]
- Add multiple meeting layout choices for each meeting, also add support meeting caption, sending pictures and files, and NFS extended disk. [IPVT10 Technical Specifications]
- Improve IPVT10 Web UI: Display NFS extended disk, display all sockets status, configure the meeting URL for the public, add displaying system information, and add "Trial" tag on License.
- Add support to send a test email for the SMTP mailbox. [Configure SMTP Mailbox]
- Changing the initial password is mandatory.
- Add support for Video display for terminals registered to UCM that are connected to the IPVT10 server via the trunk. [connect the IPVideoTalk Conference System with a 3<sup>rd</sup> party platform]

#### Firmware Version 1.0.2.8

• Add the region management function to the device. [Configure IPVT10 Server Region] [Region Management]

#### Firmware Version 1.0.1.5

- Added resetting the login password to the default password. [Forgot Password]
- Added Setup wizard for first-time use. [Setup Wizard]
- Added Server Status Dashboard. [Server Status]

- Added support for Cluster Host/Slave server. [Cluster Host Server Configuration] [Configure Slave Server] [Setup Wizard]
- $\circ~$  Added support for "Debug" for any troubleshooting needs.

#### Firmware Version 1.0.0.15

• This is the initial version.

## Need Support?

Can't find the answer you're looking for? Don't worry we're here to help!

CONTACT SUPPORT