

Grandstream Networks, Inc.

Connecting GDS37XX with GXV33XX Configuration Guide





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SUPPORTED DEVICES

Following table shows Grandstream products supporting GDS37XX integration:

Model	Supported		F irming the	
	Audio	Video (H.264)	Firmware	
GXV3370	Yes	Yes	1.0.3.28 or higher	
GXV3380	Yes	Yes	1.0.3.29 or higher	
GXV3350	Yes	Yes	1.0.3.30 or higher	





INTRODUCTION

GDS3705 is an audio door access system, an innovative IP based powerful door system. The GDS3705 was built for users looking for a strong audio-only facility access and security monitoring solution that can be deployed in environments of all sizes. This audio door system features dual microphones and HD loudspeaker with advanced AEC to offer intercom functionality, can support SIP calls to IP phones and has a built-in RFID chip reader and keypad for secured keyless or key entry.

GDS3710 HD is an IP video door system with a built-in hemispheric camera and some highdefinition video capabilities. GDS3710 is ideal for monitoring from wall to wall without blind spots. Powered by an advanced Image Sensor Processor (ISP) and state of the art image algorithms, it delivers exceptional performance in all lighting conditions. It contains integrated PoE, LEDs, HD loudspeaker, RFID card reader, motion detector, lighting control switch, Alarm Input/output and more.

The GDS37XX can control two doors at once and this guide describes needed configuration for both peering and using SIP server scenarios. And the GXV3370, GXV3380 and GXV3350 support remote door opening to manage up to two doors connected to the GDS37XX.

The GDS37XX can be connected with a SIP phone in 2 different ways, either using peering mode (without a SIP server) or through a SIP server/registrar, and in this guide, GXV3370 will be used as SIP phone and UCM6XXX as SIP server.





PEERING SCENARIO

We assume that the GDS3710 is installed on a small warehouse controlling two doors and GXV3370 inside to monitor and control the access of the premise. Employees can swipe the RFID card to get in, while visitors need to press the Door Bell to initial video call and the related person at the GXV3370 side need to type the key PIN to open the door remotely to allow the visitors to get in as shown in the figure below.



Figure 1: GXV3370 peered with the GDS3710

- The IP address used by the GDS3710 is 192.168.5.112.
- The IP address used by the GXV3370 is 192.168.5.121.

Configuration on the GDS37XX Side

The GDS37XX needs to be configured with the IP address of the GXV33XX and related SIP port, and remote PIN for door opening, when using second, third or fourth... accounts, the port number associated to each port is needed 5062, 5064, 5066...).

In order to enable the two door control on the GDS37XX, first navigate to "**Door System Settings**" \rightarrow **Basic Settings**" then set the following as shown on the figure below:





S GDS3710			
	Door System Settings		
	ALMOUT1 Feature	Open Door	•
Door System Settings	ALMOUT1 Status	Normal Open	۲
Basic Settings	Control Ontions	Door 1 Door 2	
Keep Door Open	Control Options	00012	



Then on the same page, proceed on setting the following as shown on the figure below:

Door System Settings			
Basic Settings	Number of Snapshots when Door Opened	4	
Keep Door Open	Snapshot when Door Opened	🕑 via FTP 📄 via Email	
Card Management	Snapshot when Doorbell Pressed	📄 via FTP 📄 via Email	
Group			
Schedule	Call Mode	SIP Number]
Holiday	Doorbell Call Out Account	Auto]
System Settings	Doorbell Mode	Call Doorbell Number]
P Account	Door Bell Call Mode	Serial Hunting]
Phone Settings	Number Called When Door Bell Pressed	192.168.5.121:5060,	%
🖴 Video & Audio Settings 🛛 🗸	Maximum Number of Dialed Digits	0]
Alarm Settings	No Key Input Timeout(s)	4	
Email & FTP Settings ×	Press Doorbell Schedule	All Day	Edit Schedule
	Remote PIN to Open Door 1		
	Remote PIN to Open Door 2		Ĩ
③ Status ~	· ·		

Figure 3: Door System Settings

- 1. Choose the action to be taken when the doorbell is pressed, three options are available:
 - **Call Doorbell Number**: when Doorbell is pressed, a call will be made to the "Number Called When Door Bell Pressed"
 - Control Doorbell Output (Digital Output 1): when Door Bell is pressed electronic lock for Output 1 is opened.
 - Both Of Above: When selected, both Call Doorbell Number and Control Doorbell Output options are enabled.

In our case we will choose "Call Doorbell Number".

2. The option "Door Bell Call Mode" can be used when multiple phones are configured to be called when pressing the doorbell button. Users can set this option to:





- Serial Hunting: The configured extensions and/or IP addresses will ring one after one by order.
- **Parallel Hunting:** The configured extensions and/or IP addresses will ring simultaneously (up to 4 simultaneous SIP calls).
- The Enter the IP address and port number of the GXV33XX under "Number Called When Door Bell Pressed".
- 4. Enter the "Remote PIN to Open the Door" for both door 1 and door 2 in order to be opened by dialing the **DTMF** sequence for each door while in active call with the GDS3710. (Format: **PIN#**)
- 5. Click

Save

in order to apply changes.

Make sure that the Direct IP Call feature is active from the GDS3710 Web GUI under "Account → Phone Settings" then click on "Enable Direct IP Call".

S GDS3710		
	Phone Settings	
LiveView ~	STUN Server	
Door System Settings ^	Local RTP Port	5004
System Settings	Use Random Port	
Account ^	Auto On-Hook Timer(s)	300
Phone Settings	Ringing Timeout(s)	15
Phone Settings		
Account 1 White List	SIP TLS Certificate	
Account 2 White List		
Account 3 White List		
Account 4 White List	SIP TLS Private Key	
😫 Video & Audio Settings 🛛 🐇		
Alarm Settings	SIP ILS Private Key Password	
Email & FTP Settings	Enable Direct IP Call	

Figure 4: Enable Direct IP Call

Settings Configuration on the GXV33XX Side

The GXV33XX related Account need to be set as "Active", and correct "Local SIP Port" need to be configured at the GDS37XX side. These are the basic settings to make the peering scenario work.

1. On the GXV33XX web GUI navigate under "Account > Account Settings" and set

"Account Active" to Yes, then click on Save and Apply in order to apply new changes.





S GXV3370	Q English v 🛛 💽 admin v
	Account Settings
👤 Account	Account 1 Account 2 Account 3 Account 4 Account 5 Account 6
	General Settings SIP Settings Codec Settings Call Settings Advanced Settings
🔓 System Settings 🗸	
🔀 Maintenance 🗸 🗸	Account Registration
Applications ~	Account Active 💿 🛛
Value-added Service 🗸	Account Name 🕐
	SIP Server 💿
	SIP User ID 💿
	SIP Authentication ID ③
	SIP Authentication Password 💿 😽
	Display Name 💿
	Tel URI 💿 Disable ~
	Voicemail Access Number 💿
	Network Settings

Figure 5: GXV33XX General Settings

 Navigate to "Account → SIP Settings" and verify that the "Local SIP Port" set on the GXV33XX side is the same as the one set with the GXV33XX IP address under "Number Called When Door Bell Pressed" on the GDS37XX.

S GXV3370		Q English v 🛛 💽 admin v
:Ξ Status	• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •	•
👤 Account	General Settings SIP Settings Codec Settings Call Settings Advanced Settings	
🌜 Phone Settings	Use Privacy Header @ Default	
left Network Settings		
G System Settings	Use P-Preferred-Identity Header 🧭 Default	V
🔀 Maintenance	Use P-Access-Network-Info Header 💿 🔽	
Applications	Use P-Emergency-Info Header 💿 🔽	
Value-added Service	Use Mac Header 🕥	
	SIP Transport ③ UDP	~
	Local SIP Port ⑦ 5060	
	SIP URI Scheme When Using TLS 💿 💿 sips	

Figure 6: GXV33XX SIP Settings





CONNECTION USING SIP SERVER

In case of multiple GDS37XX and GVX33XX are available, a SIP server needs to be set in order to communicate between different devices.

Note: We recommend using Stateless SIP server in this type of installations, Stateful SIP servers may not work.

The following shows a sample setup.



Figure 7: GXV33XX Connected to GDS37XX through UCM6XXX

Settings Configuration on the GDS37XX Side

A SIP account needs to be registered on the GDS37XX to interact with other devices.

This can be done by entering the GDS37XX WebGUI under "Account \rightarrow Account 1", then type the SIP account related information and click on <u>Save</u>.





S GDS3710		
	Account 1	
LiveView ·	SIP Basic Settings	
Door System Settings	Account Active	
System Settings	Account Name	1005
• Account	SIP Server	192.168.5.215
Account 1	Outbound Proxy	
Account 3	Backup Outbound Proxy	
Account 4	DNS Mode	A Record v
Phone Settings	SIP User ID	1005
🗳 Video & Audio Settings 🗸	Authentication ID	1005
Alarm Settings	Password	
Email & FTP Settings ×	TEL URI	Disabled
🔧 Maintenance 🔹 🗸	SIP Advanced Settings	
① Status ^	Registration Expiration(m)	60
	Local SIP Port	5060
	SIP Transport	UDP v
	Stream	Stream 2
	Enable DTMF	RFC2833 SIP INFO
	DTMF Payload Type	101
	Unregister Un Reboot	
	💾 Save	

Figure 8: SIP Basic Settings

Go to "Door System Settings → Basic Settings" then set the following:

- 1. Doorbell Mode set to "Call Doorbell Number".
- 2. Number Called When Door Bell Pressed (assuming 1007 is the GXV3370 number in our example).
- 3. Remote PIN to Open the Door 1 and Door 2 respectively.

The following figure shows an example of the configuration done:





S GDS3710			
	Door 2 Unlock Holding Time(s)	5	
 Liveview Door System Settings ^ 	Minimum Interval of Swiping Card(ms)	300	
Basic Settings	Number of Snapshots when Door Opened	4	
Keep Door Open	Snapshot when Door Opened	🖌 via FTP 📄 via Email	
Card Management	Snapshot when Doorbell Pressed	📄 via FTP 📄 via Email	
Group			
Schedule	Call Mode	SIP Number	
Holiday	Doorbell Call Out Account	Auto	•
System Settings ×	Doorbell Mode	Call Doorbell Number	•
Account ^	Door Bell Call Mode	Serial Hunting	•
Phone Settings	Number Called When Door Bell Pressed	1007,	્
🖴 Video & Audio Settings 🛛 -	Maximum Number of Dialed Digits	0	
♣ Alarm Settings ~	No Key Input Timeout(s)	4	
Email & FTP Settings ~	Press Doorbell Schedule	All Day	Edit Schedule
A Maintenance	Remote PIN to Open Door 1		
	Remote PIN to Open Door 2		
	Local PIN Type	Unified PIN	•
	Unified PIN Open Door Options	🖉 Door 1 🛛 🗹 Door 2	
	Local PIN to Open Door		
	Local PIN to Open Door Schedule	All Day	Edit Schedule
	Enable DTMF Open Door		
	💾 Save		

Figure 9: Door System Settings

White List Settings

Any number calling the GDS37XX extension will have its call auto answered. To restrict allowed numbers to call the GDS37XX, user needs to navigate under "**Phone Settings** \rightarrow **Account 1 White List**".

- 1. Check Enable White Number List.
- 2. Click on Add to add numbers allowed to dial the GDS37XX.
- 3. Click Save to apply the settings.





S GDS3710			
	Account 1 White List		
LiveView ~	Enable White Number List		
Door System Settings ^		V	
© System Settings	Phone Number 1	1007	۷
System Settings	Phone Number 2		د
Account ^	Phone Number 3		
Phone Settings ^	Phone Number 4		
Phone Settings	Phone Number 5		
Account 1 White List			
Account 2 White List	Phone Number 6		•

Figure 10: White List

The example above shows that only phone number 1001 is allowed to call the GDS37XX.

Settings Configuration on the GXV33XX Side

A SIP account needs to be registered on the GXV33XX side as well to interact with other devices available on the local network.

This can be done by entering the GXV33XX Web GUI under "Account → General Settings", then

type the SIP account relater information and click on Save and Apply to apply new changes.

S GXV3370		Q English v
i≡ Status	Account Settings	
👤 Account	Count 1 Account 2 Account 3 Account 4 Account 5 Account 6	•
🌜 Phone Settings	v	
🚯 Network Settings	General Settings SIP Settings Codec Settings Call Settings Advanced Settings	
🖵 System Settings	• ·	
🗶 Maintenance	Account Registration	
Applications	Account Active 💿 🔍	
Value-added Service	Account Name 💿 1007	
	SIP Server ⑦ 192.168.5.215	
	SIP User ID 💿 1007	
	SIP Authentication ID 💿 1007	
	SIP Authentication Password ⑦	2
	Display Name 🕐 1007	
	Tel IIRI @ Disable	
	Voicemail Access Number ⊘	

Figure 11: General Settings





Users could configure "Remote PIN to Open the Door" on the GXV33XX Web GUI to open the door with a single click.

This can be done from the GXV33XX web UI \rightarrow Value-added Service and set the following:

- 1. Click on Add button (The GXV33XX supports up to 10 GDS37XX devices).
- 2. Set Service Type to "Door System Type" to "GDS".
- 3. Enter the "System Number", the Extension of the remote GDS37XX.
- 4. Enter the "Related Display Name", it can be any name to identify the door being controlled in our case are "Door1" and "Door2".
- 5. Enter the "Access Password" which is the password set for each door on "Remote PIN to Open the Door 1" and "Remote PIN to Open the Door 2" respectively on the GDS37XX.

i≣ Status	5 ×	Value-added Service			
👤 Accou					
🌜 Phone		Value-added Service (1/10)			
🚯 Netwo			Service Type	Door System	
🗔 Syster			Door System Type	GDS	
🔀 Mainte			System Number 📀	1005	
Applic			Related Display Name1 💿	Door1	
S Value-	-added Service ^		Access Password ⑦	···· >>	4
Value	-added Service		Belated Dicelay Name2	Deera	
Broad			Related Display Namez ()	50012	
Broad			Access Password 🕥	···· >>	4
Broad			System Ringtone 💿	DingDong	~
			Save	Cancel	

Figure 12: GXV Settings

Once the user presses the ring button on the GDS37XX, an INVITE will be sent to the GXV phone, the GDS3710 stream will be played on the GVX phone and two buttons will appear on the left side panel named "Door1" and "Door2". If users press the "open" button, SIP MESSAGE will be sent to the GDS3710 in order to open the door as shown below.

Note: Camera feed is available on the GDS3710 only.



Figure 13: Open Door from GVX33XX

