

Grandstream Networks, Inc.

How to Configure IPVideoTalk with UCM6XXX





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OVERVIEW

This document introduces the IPVideoTalk service configuration on Grandstream UCM device with IPVideoTalk server.

The document will cover the following sections:

- 1. Peer Trunk configuration between the UCM6XXX and the IPVideoTalk server:
- 2. Configuring Outbound routes on the UCM6XXX.
- 3. Introducing how to join into IPVideoTalk conferencing system for UCM users.

Note: The UCM6XXX in this document refer to the UCM630X, UCM630XA, UCM62XX and UCM6510 models.





IPVIDEOTALK SERVICE CONFIGURATION ON UCM

SIP Trunk configuration on IPVT

Log into IPVideoTalk portal with the enterprise account, and access to **Server Maintenance** in order to access to the configuration management platform \rightarrow **Service Configuration** \rightarrow **SIP Trunk Settings page**. Fill the UCM server IP address (public IP address) in **Target Server Address** field, Make sure the Server is accessible to any IP address or to specific IP address as the screenshot below shows:

S IPVT10	Service Configure	ation						English 🗸 🐧	🕽 admin 🗸
i≣ Status	Network Settings	Port Customization	Time Settings	SIP Trunk Settings	SMTP Mailbox	Meeting Management Platform	Extended Storage	Cluster Settings	A
Service Configuration	3rd Party Platfo	orm Access							- 1
Advanced Settings		SIP Trunk Server Addi	ress: 🔿 Inaccessi	ble					
Maintenance			Accessible	e to any IP address					- 1
			 Only acce 	ssible to the following IP ac	ddress				- 1
		SRTP Supp	port: 🔿 Yes	No					- 1
		IVR Service Access Num	iber: 🗌 Enable						- 1
		PSTN Access Num	iber: 9999						- 1
	Call 3rd Party p	latform							- 1
		Use The Netw	vork: (Internal n	etwork) 192.168.5.61		Use this network to call a 3rd party accou	nt		- 1
		* Dial Pr	refix: *99						
				he prefix before dialing	iv - 06 and call 102456	to reach the third-party platform			
				- · ·	ix ∽ou anu (dll 123430				
		Target Server Addr				5060			
		Outbound Pr	roxy: IP address	or domain name		Port			

Figure 1 : IPVT SIP Trunk Configuration

UCM6XXX Configuration

PEER Trunk Configuration

- 1. Login to the UCM6XXX's Web UI, and access to **Extension/Trunk → VoIP Trunk**.
- 2. Select Create New SIP Trunk, and fill the information into option "Provider Name" and "Host Name" as the figure shows below:





S UCM6302		Security level of current username or password is too low. Click here to change them. If you have forgotten your password, please enter an email address so that a password reset email may be sent.
Menus 🗲	Edit SIP Trunk: ip	ovt
	Basic Settings	Advanced Settings Cancel Save
🚠 Extension/Trunk 🔹		
Extensions		umeric IP address, but the port number is present in the URI, the UCM performs an A or AAAA record lookup of the domain name. If a domain is configured ber, the UCM will do an SRV record lookup.
Extension Groups	* Provider Name :	lpvt
Analog Trunks	* Host Name :	pro.ipvideotalk.com.com:20000
VoIP Trunks	Transport:	TCP v
SLA Station	Auto Record :	
Outbound Routes		
Inbound Routes	Keep Original CID :	
🗳 Call Features 🗸 🗸	Keep Trunk CID :	
i I	NAT:	
PBX Settings ~ System Settings ~	Disable This Trunk	
🗴 Maintenance 🗸 🗸	TEL URI:	Disabled v
y wantehance		Copyright © Grandstream Networks, Inc. 2021. All Rights Reserved.

Figure 2 : Peer Trunk configuration

The following option need to be configured on the peer trunk settings:

Provider Name: Users need to fill in the provider's name, the duplicated name is not allowed. The provider name will be showing during inbound/outbound routing.

Host Name: Fill in the IPVideoTalk server domain name and port. For different protocols, the port numbers are different. (TCP: pro.ipvideotalk.com:20000, TLS: pro.ipvideotalk.com:20001)

SIP Transport: Users could select TCP/TLS as the SIP Transport, and the Port number should correspond the SIP Transport type.

IPVT Mode: This option is necessary. If users do not check this option, the audio/video calls may generate abnormal problems. The IPVT mode can be enabled under the advanced settings of the peer trunk.





S UCM6302		Security level of current username or password is too low. Click here to change them. If you have forgotten your password, please enter an email address so that a password reset email may be sent.	Q Apply Changes ① admin v
Menus 🗲	Edit SIP Trunk: ip	ovt	
🗥 System Status 🗸 🗸	Basic Settings	Advanced Settings	Cancel Save
🚠 Extension/Trunk 🔹	Audio FEC:		
Extensions	Video FEC :		
Extension Groups	ICE Support :		
Analog Trunks	FECC :		
VolP Trunks	SRTP:	Disabled v	
SLA Station	IPVT Mode:		
Outbound Routes	Sync LDAP Enable :		
Inbound Routes			
🗳 Call Features 🗸 🗸	Enable T.38 UDPTL	-	
🔅 PBX Settings 🗸 🗸	STIR/SHAKEN :		
🛱 System Settings 🗸 🗸	CC Settings		
🗶 Maintenance 🗸 🗸	Enable CC :		•
		Copyright © Grandstream Networks, Inc. 2021. All Rights Reserved.	

Figure 3: Enable IPVT Mode

UCM6XXX Outbound Route Configuration

This can be achieved by accessing **Extension/Trunk** \rightarrow **Outbound Routes**, click on **Add** to add the Outbound Route. As the figure below is showing:





Create New Outbound	d Rule				Cancel	Save
General						
* Outbound Rule Name :	Meetings_IPVT		Disable This Route:			-
* Pattern :	_*66x		Privilege Level :	Internal	~	
				Warning: Setting privilege level at "Internal" has potential security risks.		
PIN Groups:	None v		PIN Groups with			
			Privilege Level:			
Password :			Auto Record :			
Local Country Code :						
Enable Source Caller ID			Outbound Route CID :			
Whitelist:						
Call Duration Limit						
Call Duration Limit:						
Main Trunk		1				
* Trunk:	SIPTrunks ipvt v					
Strip:	3					
Prepend:						

Figure 4: Outbound Route configuration

The following options need to be configured under the outbound route settings:

Configure Calling Rule Name: Users need to fill in the Calling Rule Name for each Outbound Route, and the duplicated Calling Rule Name is not allowed.

Configure Pattern: Users need to configure "Pattern" to recognize the dialing numbers for UCM, and the initial pattern should be "_". The special characters and wildcard characters are allowed for patterns configuration. For instance, users could configure the pattern as "prefix + meeting ID", such as "_*99x". Then, UCM clients could dial "*99 + IPVideoTalk meeting ID" to dial into the meeting. The meeting ID could be 1 or multiple digits, and users may need to configure "Strip" option, please see the table below:





Table 1: Pattern Rule

Parameters	Description
X/x	0-9
Z/z	1-9
N/n	2-9
[345-9]	3,4,5,6,7,8,9
!	0 or multiple characters (any character)
	1 or multiple characters (any character)

Configure Privilege Level: Users need to configure the VoIP Trunk Privilege Level as "Internal" since the UCM clients' default privilege level is "Internal". The privilege level of the clients should be no lower than Outbound Route privilege level. Otherwise, the server will send 603 error messages to the clients.

Configure Use Trunk: Users need to select the configured VoIP Trunk.

Configure Strip: Users could configure the how many characters will be ignored for the prefix. For example, if users want to "*99", users could set "3" for this option.

Users could click on **Save** → **Apply changes** to create the new Outbound Route, as the figure shows below:

aled through FXO p						through different trunks. For example, "local" allows 7-d ed when the primary trunk fails. Note: This panel only
- Add 🛛 🚟	Scheduled Sync	lacklist	स्टि PIN Groups	S Import	🔓 Export	
SEQUENCE 🖨	NAME 🖨	PATTE	RN \$	PRIVILEG	E LEVEL 🜲	OPTION
1	Brach_OUT	_X.		Interna		2 👼 🗟 😒 🤅
2	Meetings_IP	/T _*66x	K	Interna	I	
			< 1 >			Total: 2 10 / page Y Goto 1

Figure 5: Outbound route created

UCM Clients Configuration

This section describes how to register the UCM6XXX's clients in order to make the calls, we are using the GXV3370 as an example:





Log into the device's **Web UI** \rightarrow **Account** \rightarrow **General Settings**, and input the extension account information which is in UCM server.

SIP Sever: Fill in the UCM server address and SIP port number. Please note that the port should correspond to the SIP Transport type.

S GXV3370		Q English ∨ admin 🖞 🗗
≔ Status ~	Account 1 (Account 2 (Account 3 (Account 4 (Account 5 (Account 6)	
🧕 Account	General Settings SIP Settings Codec Settings Call Settings Advanced Settings Special Features	
📞 Phone Settings 🗸 🗸		
🚯 Network Settings 🗸 🗸	Account Registration	
🖵 System Settings 🗸 🗸	Account Active 💿 🛛 🗹	
🔀 Maintenance 🗸 🗸	Account Name 💿 3000	
Applications ~	SIP Server ③ 192.168.5.109	
Service value-added Service v	SIP User ID 💿 3000	
	SIP Authentication ID 🕜 3000	
	SIP Authentication Password 💿 😽	
	Display Name 🕐 3000	
	Tel URI 🕐 Disabled ~	
	Voicemail Access Number 🕥	
	Network Settings	

Account and Password: Input the extension account and password which are in UCM server.

Figure 6: Configure General Settings on Clients

Configure Codecs: Users could go to the UCM client's Web UI \rightarrow Account \rightarrow Codec Settings to select the codecs. Users have to select at least one same codec as the codec for the SIP account configured on the UCM clients.

Preferred Vocoder: There should be at least one audio/video codec which is supported by both UCM client and IPVideoTalk server.

Note: We recommend enabling the option "Use First Matching Vocoder in 200OK SDP".

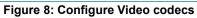




S GXV3370									Q	English ~	admin	ტ.⊡-
i≡ Status	~	Recount 1	Account 2	Account 3	Account 4	Account 5 Account 5	unt 6					
👤 Account		General Settings	SIP Settings	Codec Settings	Call Settings	Advanced Settings Sp	ecial Featur	es				
🌜 Phone Settings	~											
🚯 Network Settings	~	Preferred Aud	o Codec									
System Settings	~					4 Items Available		3 Items	Selected			
🔀 Maintenance	~					G729A/B		PCMU				
Applications	~			Preferred Audio Co	odec 🕜	G726-32	Ť	PCMA				
Value-added Service	~					ILBC Opus		G722				
							4					
				Codec Negotiation Prio	ority ⑦	Callee		~				
				ing Vocoder in 2000K S	-							
			obe first indefi									
				ILBC Frame S	Size 🕐	30ms		~				
				G726-32 ITU Payload T	Гуре ⑦	2		~				
			G726	-32 Dynamic Payload T	Гуре 🕐	126						

Figure 7: Configure Voice Codecs on Clients

Audio RED Payload Type 🛞	124
Silence Suppression ⑦	
Silence Suppression	
Voice Frames Per TX 🔞	2
Preferred Video Codec	
	1 Item Available 1 Item Selected
	□ H263 → □ H264
Preferred Video Codec 💿	
	4
Enable Video FEC 💿	
Enable RFC5168 Support ③	
FEC Payload Type 💿	120
Packetization Mode 💿	Non-Interleaved mode ~
H.264 Image Size 💿	720P v
Use H.264 Constrained Profiles ③	
H.264 Profile Type 💿	BP & MP & HP ~ ~
Video Bit Rate 💿	2048Kbps ~







DIAL INTO IPVIDEOTALK MEETINGS

We assume client A has a registered IPVideoTalk ID, and client B has a registered SIP extension in UCM (e.g. 1000), the Dial Prefix for SIP Trunk is "*99".

Scenario

UCM extension joins into the IPVideoTalk meeting by dialing IPVideoTalk meeting ID via audio call.

Prerequisite:

Active meeting 404844

Operations:

Users could dial IPVideoTalk meeting ID 0986665 (*99404844) to join into the meeting on client B.

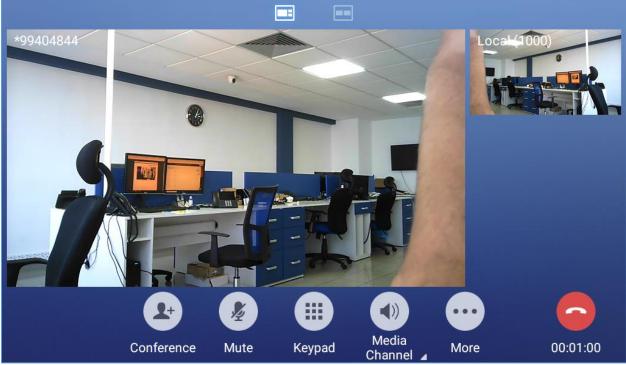


Figure 9: Meeting Call using IPVideoTalk Service with the UCM

