

# GVC3200/GVC3202 Firmware Release Notes

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## FIRMWARE VERSION 1.0.3.64

### PRODUCT NAME

GVC3200, GVC3202

### DATE

5/31/2019

### FIRMWARE FILE INFORMATION

- GVC3200/GVC3202 firmware file name: gvc3200fw.bin

MD5: 6f4c67ef31ab7b5f092f1ac465c135cf

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.45:**  
Please upgrade your GVC3200 via HTTP/TFTP server. GVC3200 firmware 1.0.1.45 has problems about upgrading the firmware via Web UI uploading.
- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.3.64 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/GVC320x\\_1.0.3.64\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/GVC320x_1.0.3.64_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.3.64 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/GVC3200\\_1.0.3.64\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/GVC3200_1.0.3.64_for_GVC_1_0_1_12_to_1_0_1_41.zip)

After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: Please DO NOT upgrade GVC3200 using 1.0.3.64 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**

- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.3.64 firmware package that contains necessary transition firmware files and 1.0.3.64 firmware file.  
[http://firmware.grandstream.com/GVC3200\\_1.0.3.64\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/GVC3200_1.0.3.64_for_GVC_below_1_0_1_12.zip)  
  
After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.  
  
**WARNING: When you upgrade GVC3200 to 1.0.3.64 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**
- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.3.64 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**
- **Supported Hardware:**
  - GVC320x 1.3A or higher.
  - BT Remote Control 1.5A or higher.

## CHANGES SINCE FIRMWARE VERSION 1.0.3.62

### ENHANCEMENT

- Added HDMI Recording Mode in GVC320x. [[HDMI RECORDING MODE](#)]

### BUG FIX

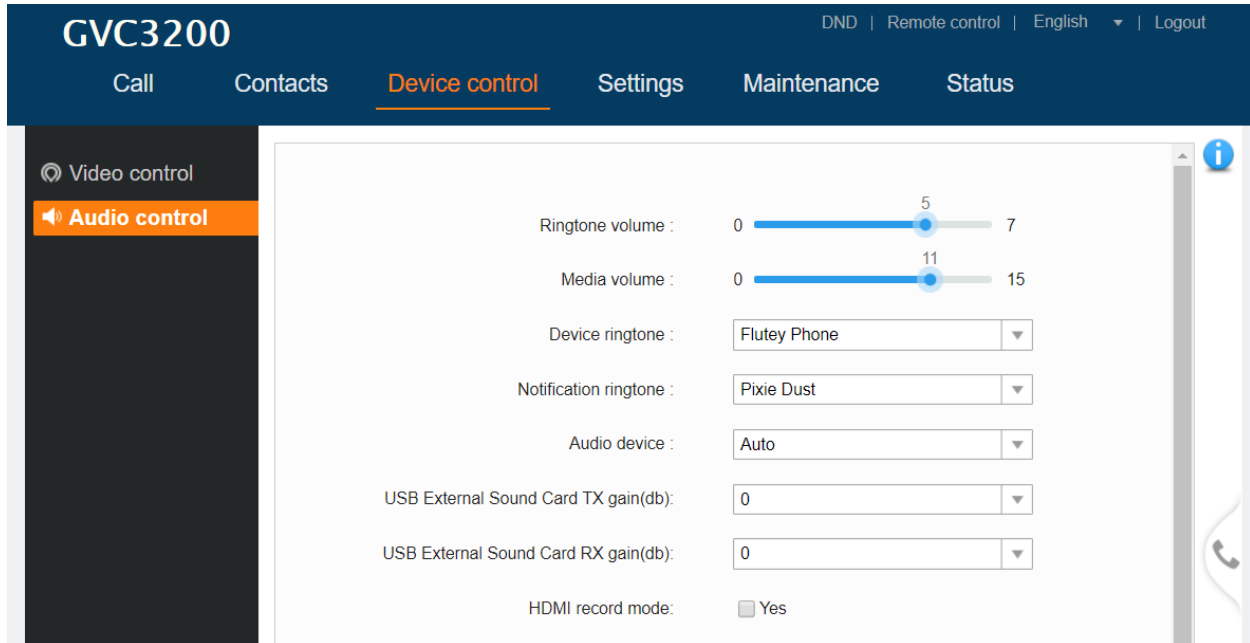
- Fixed GVC320x should not response 488 NOT ACCEPTABLE issue when the caller holds the SRTP call.
- Fixed GVC320x displays incorrect audio channel information during the call when the Audio Priority is set to “Gooseneck” mode and connects the GVC320x with a GAC2500 via Bluetooth (a gooseneck MIC is connected with the GVC320x).
- Fixed GVC320x cannot pair with the remote control via “OK” + “5” buttons if the device is in the “C0:74:AD” MAC address.
- Fixed GVC320x cannot obtain IP address issue when the device is in LLDP environment, and the user switches the device network method from PPPoE to DHCP.
- Fixed GVC320x should not lose registration issue when the nonce count is greater than 100.

- Fixed deleting multiple Google reservation sessions failed issue on GVC320x Web UI.
- Fixed GVC320x cannot obtain IP address issue when the user enables/disables device Wi-Fi network.
- Fixed GVC320x HDMI output page (Wi-Fi -> Advanced) does not display IP address correctly when the user connects the device to Wi-Fi via PPPoE method.
- Fixed GVC320x virtual remote control right operation button keeps refreshing issue after upgrading the firmware of the remote control.
- Fixed GVC320x should not display different account information on the Call UI after UCM Zero Config provisioning (Account updated information is in the Zero Config provisioning template).
- Fixed GVC320x cannot display the MetaSwitch video welcome UI when the user tries to leave a video voicemail on GVC320x.
- Fixed GVC320x does not apply the DHCP with VLAN after device restarts.
- Fixed GVC320x responded with 2 m lines both on RTP causing calls to fail with BroadSoft SBC.
- Fixed "Mute all" and "Block all" buttons should be hidden during IPVideoTalk meetings on GVC320x Web UI.
- Fixed the focus on Layout interface on GVC320x HDMI output should not jump to another option when the WebRTC host change the meeting layout during the IPVideoTalk meeting.

## NEW FEATURE OVERVIEW

### HDMI RECORDING MODE

Users could configure the HDMI channel recording mode in the call. Users could go to device Web UI -> Device control -> Audio control -> HDMI recording mode, and if it is set to "YES", it supports recording HDMI channel audio. The default value is "NO".



**GVC3200** DND | Remote control | English | Logout

Call Contacts **Device control** Settings Maintenance Status

Video control  
**Audio control**

Ringtone volume : 0  5 7

Media volume : 0  11 15

Device ringtone : Flutey Phone

Notification ringtone : Pixie Dust

Audio device : Auto

USB External Sound Card TX gain(db): 0

USB External Sound Card RX gain(db): 0

HDMI record mode: ☐ Yes

## FIRMWARE VERSION 1.0.3.62

### PRODUCT NAME

GVC3200, GVC3202

### DATE

04/09/2019

### FIRMWARE FILE INFORMATION

- GVC3200/GVC3202 firmware file name: gvc3200fw.bin

MD5: c38c85c2c15c8a98d6cd891b2328ef1f

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

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- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.3.62 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/BETA/GVC320x\\_1.0.3.62\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/BETA/GVC320x_1.0.3.62_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.3.62 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.62\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.62_for_GVC_1_0_1_12_to_1_0_1_41.zip)

After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

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- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.3.62 firmware package that contains necessary transition firmware files and 1.0.3.62 firmware file.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.62\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.62_for_GVC_below_1_0_1_12.zip)  
  
After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.  
  
**WARNING: When you upgrade GVC3200 to 1.0.3.62 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**
- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.3.62 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.3.51

### ENHANCEMENT

- Added new options to control IPVideoTalk meeting layouts. [NEW IPVIDEOTALK LAYOUTS]
- Added new layout options on GVC320x's Web UI: Common Layout Mode. This option includes options: Remote/Average/POP/PIP. [COMMON LAYOUT MODE]
- Added BroadSoft APK. Users could synchronize BroadSoft contacts and call history in the GVC320x. [BROADSOFT CONTACTS/CALL HISTORY]
- IPVideoTalk meeting layout improvement. During the IPVideoTalk meeting, users could select to fix the video image at a certain location. [IPVIDEOTALK VIDEO LAYOUT IMPROVEMENT]
- Supported new remote control for GVC3200 2.3A+ and GVC3202 1.1A+. Added remote control model option on GVC320x Web UI. GVC320x users could select the remote control model on Web UI-> Settings -> General Settings -> Remote Control Model. [REMOTE CONTROL MODEL OPTION]
- Added power menu for GVC320x remote control power button. When users press the remote control power button, there will be a pop out window shows “Shutdown”, “Sleep”, and “Restart options. When users click the power button again, the pop out window will be closed. [REMOTE CONTROL POWER MENU]
- Added support to show the number of invited members and joined members in the IPVideoTalk meeting.



- Added support to show the total number of the members in the IPVideoTalk meeting. [[SUPPORT TO SHOW MEETING MEMBERS](#)]
- Updated the Bluetooth pairing UI in the GVC320x.
- Added IPVideoTalk Conf Control features in the GVC320x. [[ADD CONF CONTROL FEATURES](#)]
- Added display for current audio input/output device on GVC320x's HDMI output. [[AUDIO INPUT/OUTPUT DEVICE](#)]
- Optimized the booting animation for GVC320x.
- Supported video mix feature with Skype application 8.15 on GVC320x.
- Supported PTZ function for Skype application 8.15 on GVC320x.
- Supported upload for server custom certificate file on GVC320x. [[CUSTOM CERTIFICATE](#)]

## BUG FIX

- Fixed GVC320x should be able to prompt reminder 10 minutes before the starting time of the scheduled meeting, and auto-dial out at the meeting starting time.
- Fixed GVC320x should be able to switch IPv4 network mode successfully.
- Fixed GVC320x should be able to display the MAC address of the remote control successfully, and the user should be able to upgrade the remote control firmware successfully.
- Fixed GVC320x remote control should be able to be paired with GVC320x device by pressing "OK" + "5" buttons.
- Fixed the user should be able to delete Google account associated conference via GVC320x's Web UI successfully.
- Fixed the configuration file deployment location should be correct on GVC320x's Web UI when the user imports the configuration file into GVC320x via Web UI.
- Fixed GVC320x's virtual remote control button should not be always refreshed on GVC320x's Web UI.
- Fixed the user should be able to use infrared control directly on GVC320x even though the MAC address does not be burned into the device.
- Fixed the VLAN tag delivered by the LLDP should be applied after the GVC320x is waked up.
- Fixed GVC320x LCD UI should not freeze when the user switches UI displayed language in Setup Wizard and complete to configure the device.
- Fixed the user should be able to rotate the camera lens when the user presses the direction button on GVC320x's remote control.
- Fixed the user should be able to go back to previous UI (current UI is Settings -> System -> Account -> Add Account) successfully if the user presses the Back button on GVC320x's remote control.
- Fixed GVC320x should be able to display Google account associated scheduled meetings successfully on GVC320x's Schedule meeting UI.
- Fixed GVC320x should be able to obtain IP address successfully when the user enables/disables Wi-Fi network on the device. This problem happens with a low probability.
- Fixed BroadSoft application crash issue in GVC320x when the user changes the configuration of BroadSoft on GVC320x's Web UI.
- Fixed the preset position number displays incorrect issue when the user applies the preset position by pressing the number key on GVC320x' remote control.

- Fixed GVC320x should be able to search Wi-Fi network when the device boots up. This problem happens with a low probability.
- Fixed the user should be able to capture pcap packets by pressing “One-click debugging” button on GVC320x’s Web UI.
- Fixed GVC320x should not be able to prompt pop up window when the user accesses to the meetings list in IPVideoTalk application in GVC320x.
- Fixed GVC320x should be able to display presentation from remote client when the GVC320x joins into the IPVideoTalk meeting and the remote client has already started presentation during the IPVideoTalk meeting.
- Fixed GVC320x should send TR069 data when GVC320x receives “404 Not Found” from ACS server during the upgrading task.
- Fixed GVC320x should be able to delete the participants during the local scheduled meeting.
- Fixed GVC320x should be able to rotate the camera lens when press the direction button in the Camera application.
- Fixed GVC320x should not be able to be searched via Bluetooth when users turn off the GVC320x Bluetooth and reboot the GVC320x device.
- Fixed the Skype application downloading version too old issue in the GS Market in GVC320x.
- Fixed GVC320x LCD interface H.323 Account Settings menu shows empty contents issue when users try to configure H.323 voicemail ID via the GVC320x LCD.
- Fixed GVC320x locked screen LCD interface should have a background image when users try to unlock the screen.
- Fixed GVC320x should restart automatically when users modify the options which require rebooting operation via TR069.
- Fixed “Play” button missing issue in YouTube application which has been installed in GVC320x.
- Fixed GVC320x is able to configure the device with the custom certificate signed by custom CA certificate.
- Fixed GVC320x is able to implement XSI Directories and Call Logs features for BroadSoft.
- Fixed GVC320x cursor should loop among all prompt options.
- Fixed GVC320x 3<sup>rd</sup> party application video feed should be able to be shared with other participants, even though other participants are only in the SIP video call.
- Fixed GVC320x displays video slowly issue when the user joins into the IPVideoTalk Webinar with the SIP account via the GVC320x as a participant.
- Fixed GVC320x crash issue when the GVC320x receive the message that requires the GVC320x to open the camera from the IPVideoTalk WebRTC meeting host.
- Fixed GVC320x Web UI should not pop out a prompt window when the user tries to resume the held call in the recorded IPVideoTalk meeting.
- Fixed GVC320x stuck on the “Loading” interface issue when the user clicks to enter the IPVideoTalk APK.
- Fixed GVC320x should display the participant’s display name when the participant hands up during the IPVideoTalk meeting. Currently, it only displays the participant’s SIP ID.

- Fixed GVC320x should not change to the device local meeting layout when the participant opens or closes the presentation.
- Fixed GVC320x should jump back to the calling interface if the GVC320x is in an IPVideoTalk meeting and the user opens the IPVideoTalk application to start an instant meeting. Currently, there is no response when the user clicks on the starting option in the IPVideoTalk application.
- Fixed GVC320x conference control APK should display connecting and synchronizing successfully when the user connects the GVC320x device with a GAC device via USB cable.
- Fixed GVC320x should not generate ANR file during the test of BroadSoft XSI Directories feature.
- Fixed GVC320x syslog should be able to be opened after the user one-clicks debug starting option.
- Fixed GVC320x should be able to display the contact name on the call interface when the user tries to dial the BroadSoft contact.
- Fixed GVC320x Web UI should display the Touchpad version information of the remote control if the device hardware version is V1.1A/V2.3A.
- Fixed GVC320x should not be able to save the illegal email addresses. This will cause the scheduled meeting disappeared issue.
- Fixed GVC320x should be able to search the BroadSoft contacts with Chinese name.
- Fixed GVC320x should prompt and do not allow the user saves the BroadSoft User ID with "space" character.
- Fixed GVC320x should send provisioning request "*cfgModelName.xml*" to the configured provisioning server.
- Fixed GVC320x delete Google scheduled meetings failed issue on the GVC320x when the user tries to delete the Google Scheduled meetings via the Scheduled Meeting application in the GVC320x.
- Fixed the local scheduled meeting in the GVC320x should not be modified to Google Scheduled meeting if the user disconnects the network connection on the device and tries to edit the local scheduled meeting.
- Fixed GVC320x should not still display the participant in the email bar when the participant has been deleted in the scheduled meeting. This scheduled meeting is created by the Google associated account.
- Fixed GVC320x should not display the participant's number and email address as two different participants in the scheduled Meeting Details page.
- Fixed the GVC320x LCD Wizard Setup UI exception issue when the user sets the language to Polski.
- Fixed users cannot continue to upgrade the GVC320x remote control according to the prompt on GVC320x LCD, and users have to step back to the last UI and click to try to upgrade again.
- Fixed the "Auto Answer" option selection box is too small issue on the GVC320x Web UI.
- Fixed there is no tooltips descriptions for "Option 43" option on GVC320x Web UI.
- Fixed GVC320x should display "None" in Meeting Details page on GVC320x LCD if the PIN code of the scheduled meeting is none.
- Fixed GVC320x is able to customize the Syslog port in the device. Users could configure "Server: port" format in Syslog server option to implement this feature.
- Fixed GVC320x LCD should show the consistent account information on the Call UI after Zero Config provisioning.

- Fixed the “Mute all” and “Block all” buttons should be hidden in the IPVideoTalk meetings on GVC320x LCD.
- Fixed the focus on the Meeting Layout interface should not move to other location when the WebRTC host update the IPVideoTalk meeting layouts.
- Fixed GVC320x display mute status error on the GVC320x Web UI when the GVC320x user joins into an IPVideoTalk Webinar before the host and mute the local MIC on the Web UI.
- Fixed the virtual remote control does not match the GVC320x issue even though the remote control could be matched with GVC320x correctly.
- Fixed GVC320x does not release TR-069 data issue when the ACS executes upgradeTask and the server responds “404 Not Found” to GVC320x device.
- Fixed the “gvc3200afw.bin” postfix should be removed when users try to upgrade the GVC320x device from ACS platform. The “gvc3200afw.bin” postfix should be removed from the URL which is sent by ACS platform.
- Fixed the connected USB mouse does not work with GVC320x device in idle state if the MAC is not burned into the GVC320x device, and users need to reboot the GVC320x device to use the connected USB mouse with GVC320x.
- Fixed GVC320x crashed issue when users initialize multiple auto video calls from the GVC320x device.
- Fixed GVC320x should not generate gs\_phone core file when users connect a GAC2500 with the GVC320x device via Bluetooth and configure to auto-dial other accounts on the GAC2500.
- Fixed GVC320x decoding issue in the meeting (there is no audio/video in the meeting) when users use another GVC320x device to join into the meeting, start presentation, and leave the meeting repeatedly.
- Fixed GVC320x cannot detect HDMI connection issue when the connected TV is turned off.
- Fixed the camera default configuration should not be changed after GVC320x device factory reset.
- Fixed GVC320x should output the audio via Bluetooth if the GVC320x device connects with GAC2500 and enables HDMI IN locally.
- Fixed GVC320x device does not show any image issue after opening local presentation on the device.
- Fixed GVC320x does not update the ACS URL value issue when users execute SetValueTask and send to the GVC320x device from ACS platform.
- Fixed GVC320x should not change the configured ringtones when users restore the backup on the GVC320x device.
- Fixed some hardware interfaces are not recognized issue after GVC320x has been auto rebooted.
- Fixed GVC320x causes GAC2500 upgrading repeatedly issue when users connect the GVC320x with the GAC2500 device via USB cable during the processing of GAC2500 upgrading. GVC320x resends the APK upgrading request to the GAC2500 when the GAC2500 boots up, and the GAC2500 goes to upgrade again by this reason.
- Fixed GVC3200 does not work with GAC2500 in Skype calls.
- Fixed the descriptions of Bluetooth pairing notification contents which can be found in GVC320x device.
- Fixed GVC320x does not recognize 1TB HDD issue when users connect 1TB HDD with GVC320x.

- Fixed users could access the Auto-Answer configuration page when users click the Auto-Answer button in the GVC320x device notification bar.
- Fixed GVC320x is able to configure the device with the custom certificate signed by custom CA certificate.
- Fixed the main stream packets loss information incorrect issue on the receiving side when users start/end presentation repeatedly on the GVC320x device.
- Fixed GVC320x should not generate core.dbus-SocketPoll file when users soft restart the GVC320x device.
- Fixed GVC320x should not prompt to execute FPGA program failed when after downloading the ATE APK from the GVC320x device.
- Fixed the drop-down menu misplaced issue when users call the drop-down menu in GVC320x.
- Fixed GVC320x does not download the upgrading file issue when users try to execute the upgrading task from ACS platform.
- Fixed GVC320x should not be frozen at “Grandstream” interface when users try to restart the device and the device is lack of memory space.
- Fixed GVC320x should not generate the core.gs\_cpe file (the CPE process has been killed) when users have modified the ACS source address in GVC320x.
- Fixed GVC320x's camera should not be off issue when the user starts presentation after opening camera in IPVideoTalk Webinar as an attendee.
- Fixed the layout of the URLs in GVC320x IPVideoTalk Meeting Info are not friendly issue.
- Fixed GVC320x should resend a request to login IPVT10 server again when users delete the access token of IPVT10 from GVC320x and access the APK again.
- Fixed GVC320x should not lose the “Participants List” and “Meeting Info” when GVC320x exits and joins a new meeting.
- Fixed users cannot see the local recording files issue in GVC320x's personal room.
- Fixed GVC320x should prompt error message (5026 error code) when users join the meeting via GVC320x and the video feeds reach the upper limit.
- Fixed GVC320x should change uplink the video resolution to 720P instead of 1080P when there are 3 video images in the IPVideoTalk conference at the same time.
- Fixed GVC320x should not prompt “Current not in IPVideoTalk meeting” when users hold the IPVideoTalk meeting and click on “Participants List”. GVC320x should prompt to ask users to resume the meeting.
- Fixed the multiple meeting URLs should be aligned in the Meeting Info in GVC320x during the IPVideoTalk meeting when there are spaces between the meeting URLs.
- Fixed users cannot see the Raise Hand icon when users log in the GVC320x WebUI via Firefox browser.
- Fixed GVC320x should not send the login requests twice when users reactivate IPVideoTalk ID in GVC320x and access the IPVideoTalk APK in GVC320x.
- Fixed GVC320x should add the “Cancel Meeting” option for the yellow button under the Meetings List menu in IPVideoTalk APK.

- Fixed GVC320x should send “get\_all\_users” information only when users open Conf Control menu during the IPVideoTalk meeting.
- Fixed GVC320x cannot unmute itself issue when the GVC320x device is in both IPVideoTalk meeting and SIP meeting.
- Fixed the icon should be changed after users click on “Unshare Camera” button in GVC320x when users join the IPVideoTalk meeting before the host via the GVC320x.
- Fixed the icon of “myself” displays incorrect issue after opening the camera (The Participants List is disabled).
- Fixed the icon of “myself” displays incorrect issue after the meeting host mutes all participants (The Participants List is disabled).
- Fixed users cannot operate on Raise Hand option in Conf Control in GVC320x when users redial into the IPVideoTalk meeting.
- Fixed the Raise Hand icon of attendee should not remain in highlight state when the attendee becomes the IPVideoTalk meeting host.
- Fixed the host GVC320x should update the Participants List synchronous when there are some participants leave the IPVideoTalk meeting.
- Fixed the Raise Hand icon should not remain in highlight state when the GVC320x participant joins into the IPVideoTalk meeting.
- Fixed the suspension text should not disappear when users change the video layouts to 1+N mode in GVC320x in IPVideoTalk meeting.
- Fixed GVC320x should not play abnormal audio when users mute/unmute the microphone during the IPVideoTalk meeting (users join into the IPVideoTalk meeting as PSTN users).
- Updated the English hints about the actions of Raise Hand feature in Conf Control in GVC320x device.
- Fixed there is no case sensitive when users try to search results in the IPVideoTalk meeting.
- Fixed the Participants List of GVC320x should be updated when the GVC320x device becomes the IPVideoTalk meeting host.
- Improved the tile mode layouts for GVC320x.
- Fixed some buttons on the GVC320x’s Web UI should not be able to be operated in the IPVideoTalk meeting.
- Removed the “Audio Answer” option on GVC320x’s Web UI for IPVideoTalk incoming calls.
- Fixed GVC320x should have tips when users mute/unmute the GVC320x device.
- Fixed GVC320x IPVideoTalk meeting host should be able to operate the microphone and camera of the participant when the IPVideoTalk Webinar starts.
- Fixed the control of SIP participants should not disappear in GVC320x after IPVideoTalk participants join/leave the meeting (GVC320x device is in both SIP call and IPVideoTalk meeting).
- Fixed the Raise Hand icon of “myself” should disappear after searching for something during the IPVideoTalk meeting in GVC320x.
- Fixed there is no tips issue when the GVC320x meeting host changes the IPVideoTalk Video layouts.
- Fixed the microphone icon of “myself” in the Conf Control menu displays incorrect issue when users redial into the IPVideoTalk meeting in mute state with GVC320x.



- Fixed “ME” should not become the displaying name in GVC320x in IPVideoTalk meeting when users try to mute and turn off the camera on GVC320x.
- Fixed the site name on GVC320x HDMI output moves automatically with status bar issue.
- Fixed users cannot use mouse function issue with remote control on GVC320x. The remote control application version has been updated to 1.0.1.6.
- Fixed GVC320x does not send the GK authentication username on the gateKeeperRequest issue while the user tries to register the GVC320x to the gatekeeper via H.323.
- Fixed GVC320x causes the GAC2500 repeats upgrading issue when GVC320x connects to the GAC2500 via USB cable during GAC2500’s factory reset process.
- Fixed GVC320x should show prompt “No calling number” when GVC320x calls a call group which only has the contact without any calling number in GVC320x.
- Fixed GVC320x should not change the configured ringtones after GVC320x initializes factory reset and restores the backup files.
- Fixed GVC320x should not change the camera default configuration after GVC320x initializes factor reset.
- Fixed GVC320x should show the correct main stream packet loss information for receiving side when the user tries to enable/disable video presentation on the callee side for several times during the video call.
- Fixed GVC320x loses audio/video issue in the conference when the user invites the GVC320x into the conference and enables video presentation on the GVC320x. Repeat to invite the GVC320x into the conference, enable the video presentation and remove it from the conference, this issue can be reproduced with a low probability.
- Fixed GVC320x’s some hardware interfaces cannot be recognized issue after auto reboot the GVC320x device.
- Fixed GVC320x phone module crash issue when the GVC320x keeps making calls automatically for a long time.
- Fixed GVC320x should not generate gs\_phone core file when the user connects GVC320x with GAC2500 via Bluetooth and configures Bluetooth account auto-dial feature via GAC2500.
- Fixed GVC320x should detect the HDMI connection is disconnected when the TV monitor has been turned off.
- Fixed GVC320x cannot detect the 1TB HDD storage issue when users connect the 1TB HDD with the GVC320x.
- Fixed GVC320x cannot upgrade firmware issue when checking server certificate.
- Fixed the Skype calls should work fine on GVC320x when the GVC320x connects with GAC2500.
- Fixed GVC320x should hide the Participants List options when users try to call IMS accounts via IPVideoTalk ID in the GVC320x.
- Fixed GVC320x cannot exit the IPVideoTalk meeting issue when the GVC320x joins the IPVideoTalk meeting and receives BYE message quickly.
- Fixed “Join by phone” field contents exceed the boundary issue on GVC320x’s HDMI output if the PSTN number is too long.

- Fixed “Join by phone” field should be in the middle of the IPVideoTalk Call Details page on GVC320x’s Web UI.
- Fixed GVC320x cannot display video issue when the GVC320x joins the IPVideoTalk meeting with a certain packet loss rate.
- Fixed GVC320x’s Participants List should be updated when the meeting host starts the IPVideoTalk meeting. In this case, the GVC320x joins into the IPVideoTalk meeting before the meeting host.
- Fixed GVC320x’s Participants List should be updated when the IPVideoTalk meeting host allows all participants to view the attendees list.
- Fixed GVC320x’s Participants List should be updated when the GVC320x participant becomes the IPVideoTalk meeting host.
- Fixed the URLs’ layout unfriendly issue during the IPVideoTalk meeting if there are multiple URLs in GVC320x’s Meeting Info on the HDMI output.
- Fixed GVC320x initializes video presentation failed issue during the IPVideoTalk meeting when the WebRTC client participant enables/disables presentation during the IPVideoTalk meeting.
- Fixed GVC320x cannot accept any incoming call during the IPVideoTalk meeting if the GVC320x receives two incoming calls at the same time during the IPVideoTalk meeting.
- Fixed GVC320x shows incorrect MIC status issue if the GVC320x has been kicked out of the IPVideoTalk meeting in the mute state and rejoined a new IPVideoTalk conference.
- Fixed GVC320x should not display the camera is “On” during the IPVideoTalk meeting if the user opens the camera failed during the IPVideoTalk meeting.
- Fixed the IPVideoTalk ID should not lose registration issue in the GVC320x when users update the IPVideoTalk server address in the IPVideoTalk application in GVC320x.
- Fixed GVC320x should not send the login request twice continuously when the user activates the IPVideoTalk account on GVC320x’s Web UI and opens the IPVideoTalk application in the GVC320x.
- Fixed GVC320x cannot register the IPVideoTalk ID via TCP issue when the destination port is set to 5060 in the GVC320x.
- Fixed GVC320x’s camera video is stuck issue during the IPVideoTalk meeting when the GVC320x starts presentation during the IPVideoTalk meeting (there is another client starts camera at the same time).
- Fixed the IPVideoTalk meeting URLs should be completed in Schedule section on GVC320x’s HDMI output if there are multiple URLs for the IPVideoTalk meeting.
- Fixed the IPVideoTalk Participants List keeps showing “Loading” issue when the GVC320x participant has been kicked out of the IPVideoTalk meeting.
- Fixed GVC320x’s camera video disappears issue during the IPVideoTalk Webinar when the GVC320x has been set to a panelist and starts presentation during the IPVideoTalk Webinar.
- Fixed GVC320x’s Participants List should be updated when the GVC320x has been set to a panelist during the IPVideoTalk Webinar.
- Fixed GVC320x’s Participants List should be updated when the IPVideoTalk Webinar host starts the Webinar from preparation state to “In progress” state.
- Fixed GVC320x should not show the error tips when the GVC320x has been invited to another IPVideoTalk meeting (with password) during the current IPVideoTalk meeting. The error tips could be



seen when the GVC320x clicks to join the new IPVideoTalk meeting and stays at the password authentication UI of the IPVideoTalk meeting.

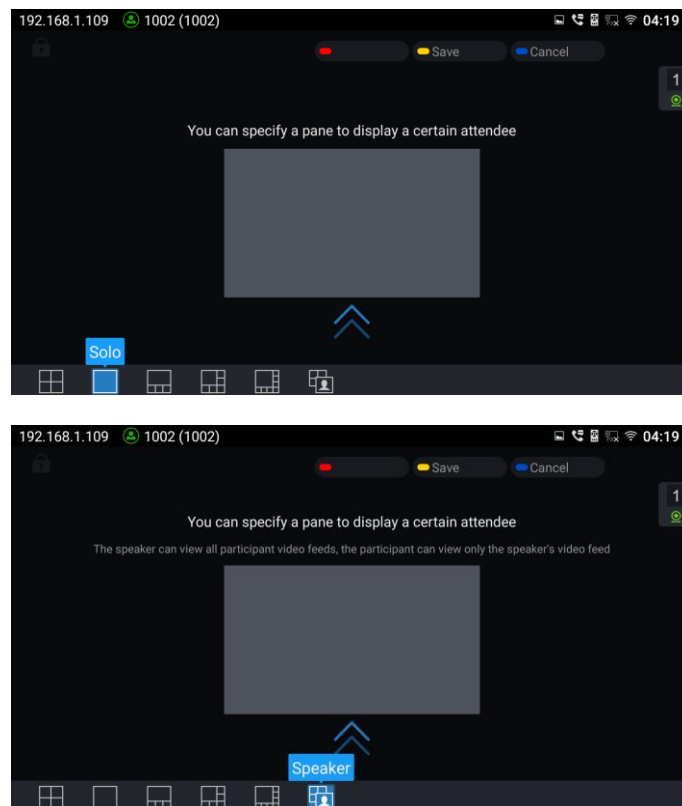
- Removed some buttons in the IPVideoTalk application in GVC320x for the schedule meeting function.
- Fixed GVC320x shows incorrect input/output audio priority after the audio priority is set to “USB” but the USB speaker has been disconnected with the GVC320x device.
- Fixed GVC320x shows incorrect input/output audio priority after the audio priority is set to “HDMI” in the gvc320x device.
- Fixed GVC320x responds with 2m lines both on RTP causing calls to fail with BroadSoft SBC.

## NEW FEATURE OVERVIEW

### NEW IPVIDEOTALK LAYOUTS

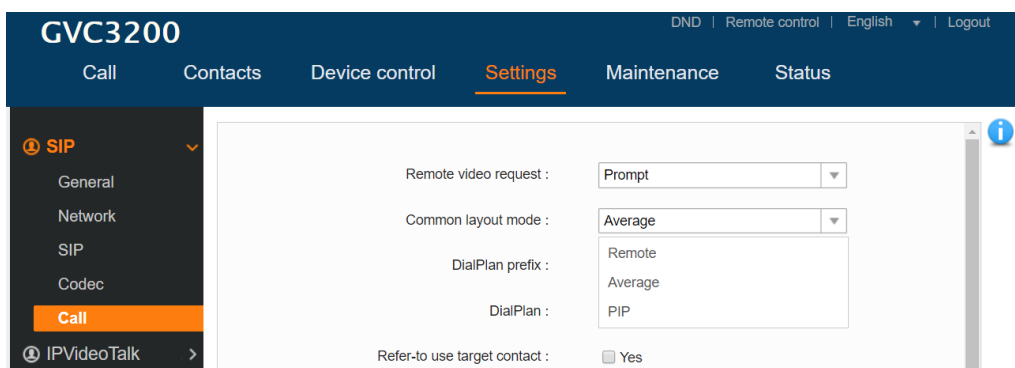
Users could set new video layouts during the IPVideoTalk meeting. Users could select **Cloud Meeting Layouts** during the IPVideoTalk meeting to access to the layouts selection page.

- **Set the meeting layout to Solo mode:** Users could specify a pane to display a certain participant.
- **Set the meeting layout to Speaker mode:** Users could specify a pane to display a certain participant. The speaker can view all participants' video images, and the participants can only view the speaker's video image.
- For custom meeting layout 1 and custom meeting layout 2, users can switch to display the custom meeting layouts during the IPVideoTalk meeting.



## COMMON LAYOUT MODE

This option is used to set the common layout mode, which applies all the initial meeting layout modes. Users could go to Settings -> each account -> Call settings to select the options: Remote/Average/PIP. When the user selects “Remote”, only the remote video will be filled on the full screen. When the user selects “Average”, the remote video image and local video image will be displayed separately as the same size on the screen. If the user selects “PIP”, the local video will be a small window on the remote video image which is on the full screen.

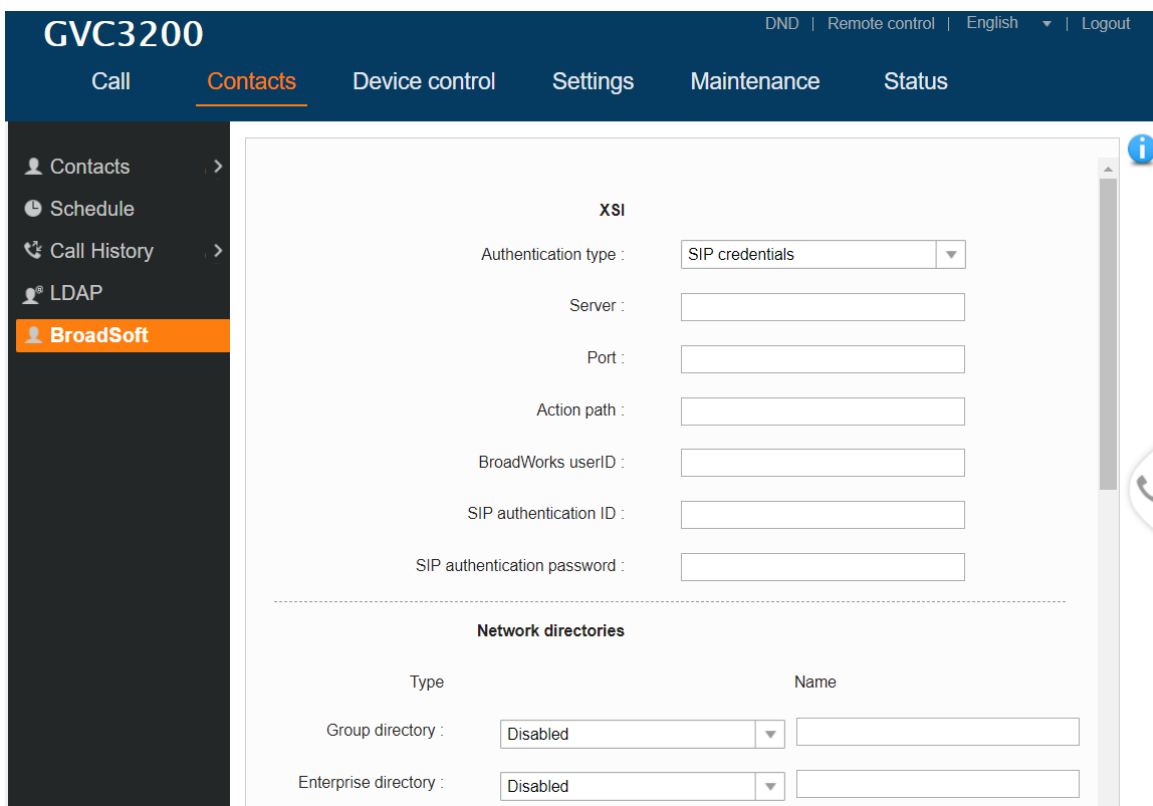


The screenshot shows the GVC3200 web interface with the 'Settings' tab selected. The left sidebar shows 'SIP' as the active account. The main content area displays the following settings:

- Remote video request :
- Common layout mode :
- DialPlan prefix :
- DialPlan :
- Refer-to use target contact : ☐ Yes

## BROADSOFT CONTACTS/CALL HISTORY

Users could synchronize BroadSoft contacts and call history in the GVC320x.



The screenshot shows the GVC3200 web interface with the 'Contacts' tab selected. The left sidebar shows 'BroadSoft' as the active account. The main content area displays the following settings:

### XSI

- Authentication type :
- Server :
- Port :
- Action path :
- BroadWorks userID :
- SIP authentication ID :
- SIP authentication password :

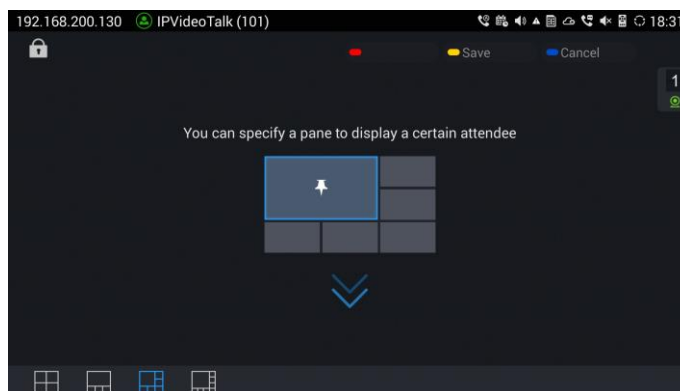
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### Network directories

Type	Name
Group directory :	<input type="text" value="Disabled"/>
Enterprise directory :	<input type="text" value="Disabled"/>

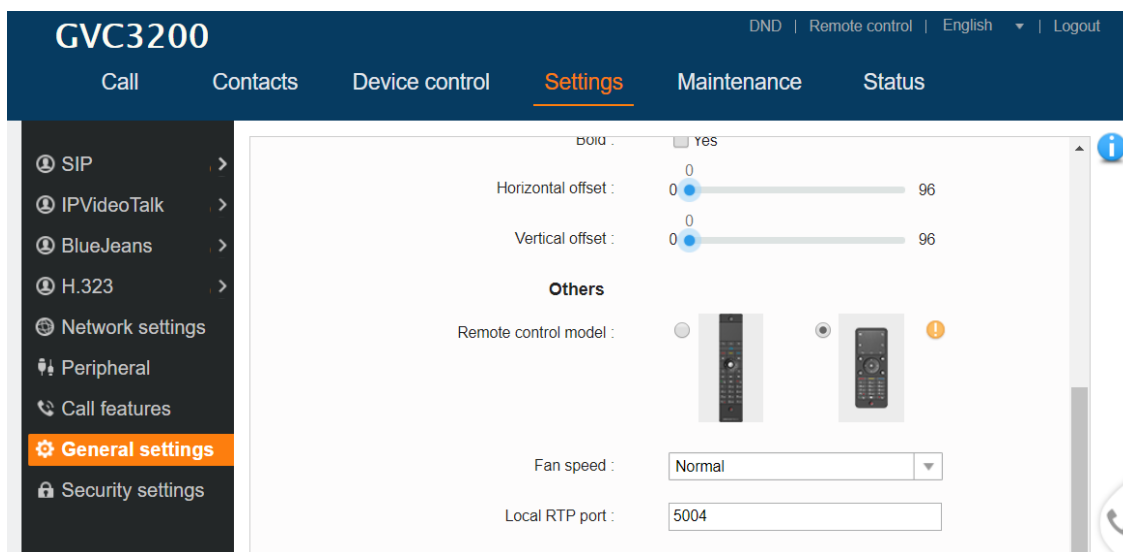
## IPVIDEOTALK VIDEO LAYOUT IMPROVEMENT

Users could fix the video image location on a specific location during the IPVideoTalk meeting with IPVT10 server.



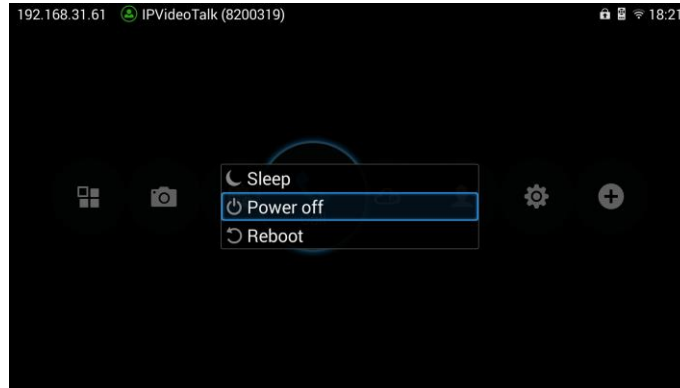
## REMOTE CONTROL MODEL OPTION

Users could go to GVC320x Web UI -> Settings -> General Settings -> Remote Control Model to select the remote control model based on the figure. If the user has our new remote control, the user could switch to the new model following this way.



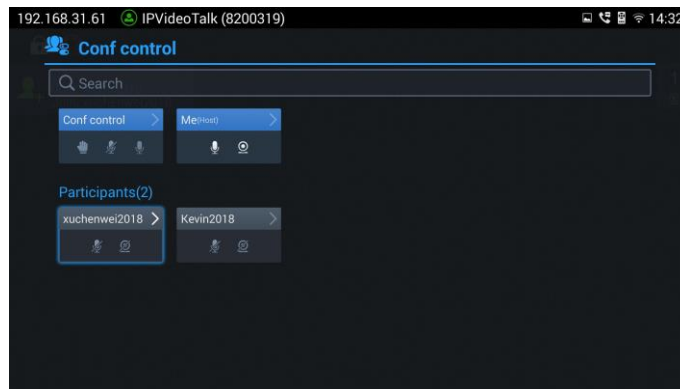
## REMOTE CONTROL POWER MENU

When users click on the power button on the GVC320x remote control, users could select to access to Sleep mode, Power off the device, or Reboot the device. Users could also click the power button on the remote control again to close the pop out window.



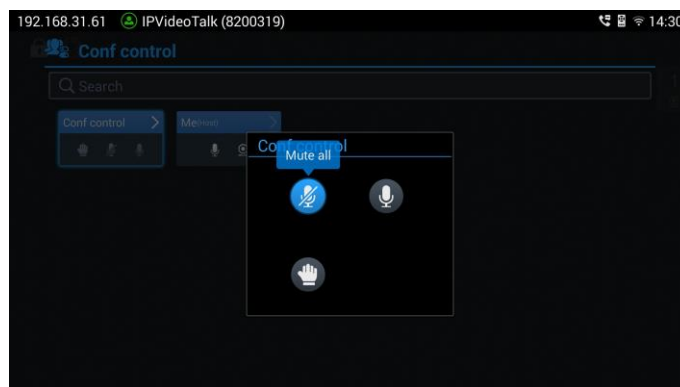
### SUPPORT TO SHOW MEETING MEMBERS

Users could go to Conf Control option during an IPVideoTalk meeting to see the meeting members and total amount of members.



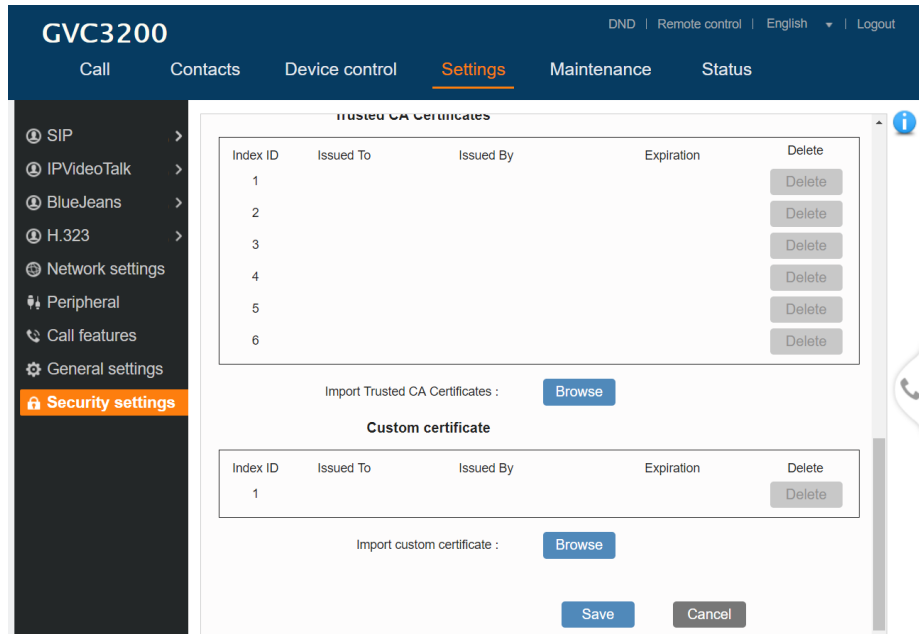
### ADD CONF CONTROL FEATURES

Users could go to Conf Control menu during an IPVideoTalk meeting to control the Microphone/MIC for each participant, or a batch of meeting participants.



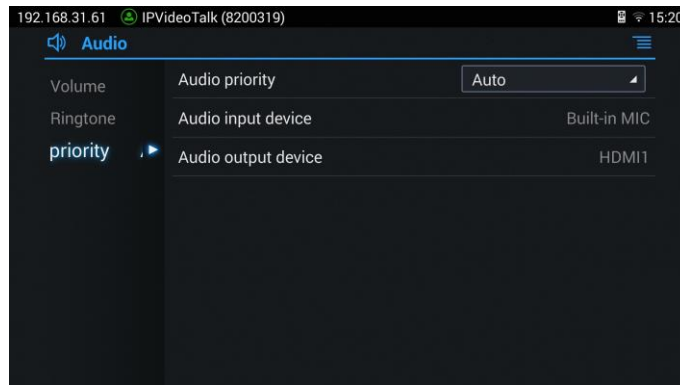
## CUSTOM CERTIFICATE

Users could import the custom certificate to GVC320x so that the GVC320x device could be used as the authentication server for the SIP providers. Kindly refer to the screenshot for the new adding feature:



## AUDIO INPUT/OUTPUT DEVICE

Users could go to GVC320x's HDMI output -> Settings -> Audio -> Audio Priority to check the current audio input/output device. Kindly refer to the screenshot for the new adding feature:



## FIRMWARE VERSION 1.0.3.51

### PRODUCT NAME

GVC3200, GVC3202

### DATE

04/26/2017

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.45:**  
Please upgrade your GVC3200 via HTTP/TFTP server. GVC3200 firmware 1.0.3.45 has problems about upgrading the firmware via Web UI uploading.
- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.3.51 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/BETA/GVC320x\\_1.0.3.51\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/BETA/GVC320x_1.0.3.51_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.3.51 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.51\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.51_for_GVC_1_0_1_12_to_1_0_1_41.zip)

After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: Please DO NOT upgrade GVC3200 using 1.0.3.51 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**

- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.3.51 firmware package that contains necessary transition firmware files and 1.0.3.51 firmware file.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.51\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.51_for_GVC_below_1_0_1_12.zip)

After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: When you upgrade GVC3200 to 1.0.3.51 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**

- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.3.51 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.3.49

### ENHANCEMENT

- Added IPVideoTalk Menu on GVC320x's home screen. [[IPVideoTalk Menu](#)]
- Added “Record” feature on the Troubleshooting Menu. [[Record Feature for Troubleshooting](#)]

### BUG FIX

- Fixed GVC320x PTZ compatible issue with Safari browser on iOS.
- Fixed GVC320x stuck issue on “Deleting...Please wait...” interface when users try to delete the multiple contacts on the device.
- Fixed the frame rate under 720P demo on GVC320x is not effective during the H.323 call.
- Fixed GAC2500 still plays the audio issue when two GVC320x devices were connected with the GAC2500, and hold the call from one of the GVC320x device.
- Fixed Gooseneck MIC option is missing issue on the Web UI of GVC320x.
- Fixed Hangouts application cannot be logged in issue if users download the Hangouts application from GS Market.
- Fixed the GVC320x keeps sending upgrading request issue when users connect GVC320x to GAC2500 via USB cable during the GAC2500 factory reset processing.
- Fixed GVC320x Web UI restarts no effect issue after opening/closing the presentation during a long time video conference.
- Fixed GVC320x camera default configuration should not be changed after factory reset the device.
- Fixed GVC320x has no audio/video issue when the meeting host invites/deletes the conference participant repeatedly.
- Fixed GVC320x Web UI displays unfriendly issue when users log in the Web UI via IE browser.
- Fixed GVC320x hardware interfaces cannot be recognized issue after auto rebooting the device.

- Fixed GVC320x crash issue when users initialize long time auto call with the device.
- Fixed GVC320x should not go out of the Contacts interface if users dial a number which does not match the dialing plan on the Contacts interface. Users should only see the error prompt and ask users to redial.
- Fixed GVC320x should not generate a gs\_phone core file if users connect the device with GAC2500 via Bluetooth and set auto-dialing method on the GAC2500.
- Fixed the display name of BlueJeans account does not save in GVC320x after rebooting the device.
- Fixed GVC320x should support IP Calls via TCP SIP transport.
- Fixed GVC320x should not generate pvalue\_validaticore file after ACS authentication process is failed for TR-069.
- Fixed GVC320x does not report the SIP regular configuration profile for TR-069.
- Fixed GVC320x network status inconsistent issue between SSH/Web UI/Local device after connecting with VPN.
- Fixed GVC320x recording failed issue after users insert an USB drive to wake up the device from sleeping mode.
- Fixed no audio/video issue when users establish a video call under IPv6 network with two GVC320x devices.
- Fixed GVC320x flashes back issue during diagnosis when users click the audio loop back option.
- Fixed GVC320x should not jump to the ringing interface during the meeting once there is an incoming call to the GVC320x.
- Fixed GVC320x should always prompt to ask for users' permission to upgrade the GVC320x device.
- Fixed GVC320x Web UI displays abnormally issue after downgrading/upgrading GVC320x's firmware.
- Fixed GVC320x video image freezes for about 3 minutes during the call, and the device will take about 4 minutes to be recovered.
- Fixed GVC320x should not prompt password modification box after modifying the IPVideoTalk server address.
- Fixed GVC320x should not keep showing "Loading..." if users update the password for personal room when there is an activated or "to be hosted" personal meeting (GVC320x is not in the personal room).
- Fixed GVC320x should show the "Successful" tip after saving the correct IPVideoTalk server address.
- Fixed the participants list options should be hidden when users call IMS account via IPVideoTalk account.
- Fixed GVC320x cannot switch the images layouts issue when users connect the GVC320x to 3 monitors.
- Fixed GVC320x OPUS codec poor audio quality issue if the packets loss rate of "Sending" is higher than 10%.
- Fixed GVC320x should not still display presentation button after GVC320x start presentation failed with WebRTC at the same time.
- Fixed GVC320x does not adjust sending bit rate issue when GVC320x receives REINVITE.
- Fixed GVC320x does not send HTTP request issue when users re-activate the IPVideoTalk account.
- Fixed GVC320x only receives XR issue when GVC320x suspends the meeting during the IPVideoTalk meeting. GVC320x should also send XR to the IPVideoTalk server.



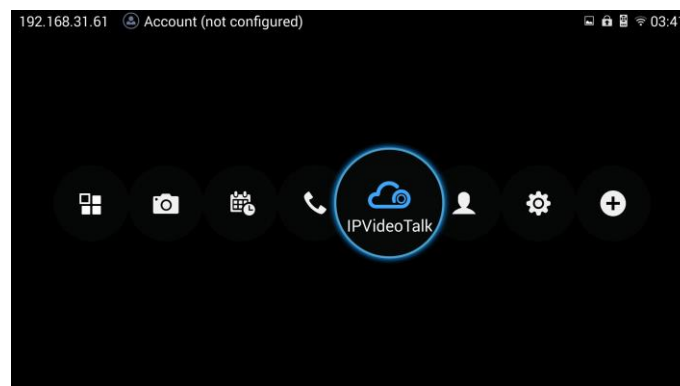
- Fixed GVC320x first screen displays stuck picture when GVC320x connects to 3 monitors, and the WebRTC joins into the meeting to start/close the presentation.
- Fixed the URLs in “Call Details” on GVC320x’s Web UI show unfriendly issue if there are multiple URLs for the IPVideoTalk meeting.
- Fixed the video frame rate which is sent by GVC320x and exceeds the value of IPVideoTalk server negotiation.
- Fixed IPVideoTalk account on the GVC320x cannot register successfully when the GVC320x is under Beijing 4|5 environment.
- Fixed the IPVideoTalk account could be registered as expected on the GVC320x if the IPVideoTalk server is set to empty. The IPVideoTalk account on the GVC320x could get registered based on the DNS environment.
- Fixed the time format displaying issue on the “Schedule Meeting” interface on GVC320x for IPVideoTalk service.
- Fixed GVC320x could add participants which starts with “+” character when scheduling an IPVideoTalk meeting on GVC320x’s Web UI.
- Fixed GVC320x cannot prompt keyboard issue when scheduling an IPVideoTalk meeting and adding participants.
- Fixed GVC320x should not show a layer mask when users enter the IPVideoTalk application on the GVC320x.
- Fixed GVC320x does not show its displaying name issue on the Participants List.
- Fixed the presentation video image stuck issue when users check the presentation via WebRTC and the GVC320x is under a bad network environment.
- Fixed GVC320x should support to input “IP + Port” mode for IPVideoTalk server address.
- Fixed GVC320x should expend the registration timeout period for IPVideoTalk account in the IPVideoTalk application.
- Fixed GVC320x IPVideoTalk application should not send the login request twice when users set the IPVideoTalk on the GVC320x’s Web UI and open IPVideoTalk application on the device.
- Fixed GVC320x becomes slowly issue when the participants are over 200 and users check the participants list on the GVC320x.
- Fixed the URLs should display more friendly issue on the GVC320x when users check the meeting details during the IPVideoTalk meeting and the URLs are too long.
- Fixed GVC320x should not jump to meeting list interface if users click “Confirm” on the “Schedule Meeting” window.
- Fixed GVC320x should display default account after quitting “Call” interface.
- Fixed GVC320x should display failed prompt if users save the incorrect IPVideoTalk server address at second time.
- Fixed GVC320x should display successful prompt if users save the correct IPVideoTalk server address after saving the incorrect IPVideoTalk server address.
- Fixed GVC320x “Call Details” page should not display data after the GVC320x has been kicked out of the meeting.

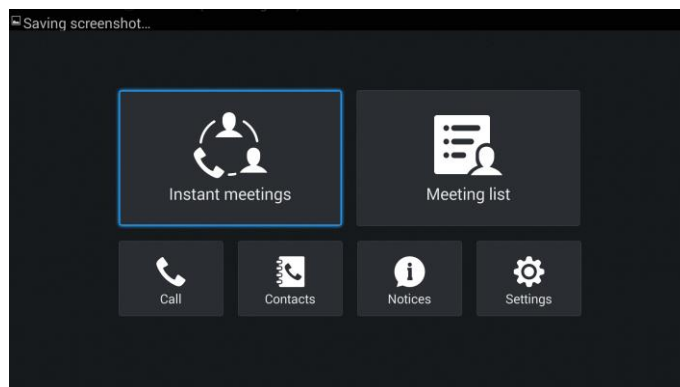
- Fixed the unreasonable tips on the GVC320x when users fail to update the password of the meeting which is “to be hosted”.
- Fixed GVC320x does not send FEC of V2 when IPVideoTalk server invites the GVC320x with GVC320x has closed FEC in V1.
- Fixed GVC320x’s image should not be stuck when receiving RENIVITE after deleting SIP calls.
- Fixed GVC320x presentation failed issue when users start presentation on the GVC320x during the audio call.
- Fixed GVC320x “Network Connectivity Test” option should not be blank.
- Fixed GVC320x remote control “GVC3202\_V2.0A\_cfg” displays incorrect information on the Web UI.
- Fixed GVC320x should not go to a gray interface once the call is cancelled on the device.
- Fixed GVC320x’s audio channel cannot be recovered when GVC320x suspends the meeting failed.
- Fixed GVC320x should send HTTP request to get SIP address when the IPVideoTalk server is a domain address.
- Fixed GVC320x should not send HTTP request to the IPVideoTalk server if the IPVideoTalk server address in the GVC320x is not changed.
- Fixed GVC320x cannot display meeting information and participants issue after the GVC320x joins the IPVideoTalk Webinar.
- Fixed GVC320x’s meeting interface has a mask when GVC320x redials the meeting with PC mode.
- Fixed GVC320x should not prompt the same error messages if users update the meeting password and the meeting is in progress/to be hosted.
- Fixed GVC320x Participants List should not always show “Loading...” status if users join into the meeting which is “to be hosted”.
- Fixed the cursor on the GVC320x should not jump to the front of the blank after saving the IPVideoTalk server address on the device.
- Fixed GVC320x Participants List is not updated at real time.

## NEW FEATURE OVERVIEW

### IPVideoTalk Menu

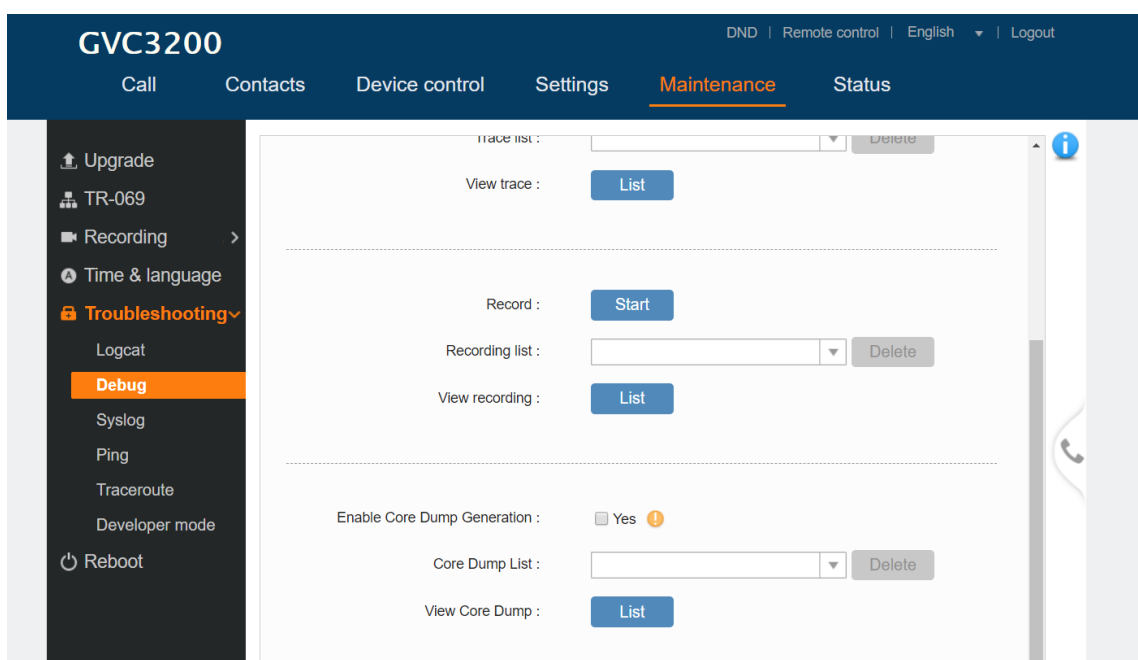
IPVideoTalk Menu has been added on the home screen of GVC320x 1.0.3.51. Users could access the IPVideoTalk application menu by clicking the IPVideoTalk Menu on the home screen. Kindly refer to the screenshots show blow:





### Record Feature for Troubleshooting

“Record” feature has been added under “Troubleshooting” Menu on GVC320x’s Web UI. Click to start capturing audio data, and click the “Stop” button to end. To capture the audio data of the device can help to locate audio issues. The default is not enabled. You can record up to 1-minute audio data. Kindly refer to the screenshot show the feature on GVC320x’s Web UI:



## FIRMWARE VERSION 1.0.3.49

### PRODUCT NAME

GVC3200, GVC3202

### DATE

03/09/2017

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.45:**  
Please upgrade your GVC3200 via HTTP/TFTP server. GVC3200 firmware 1.0.3.45 has problems about upgrading the firmware via Web UI uploading.
- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.3.49 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/BETA/GVC320x\\_1.0.3.49\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/BETA/GVC320x_1.0.3.49_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.3.49 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.49\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.49_for_GVC_1_0_1_12_to_1_0_1_41.zip)

After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: Please DO NOT upgrade GVC3200 using 1.0.3.49 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**

- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.3.49 firmware package that contains necessary transition firmware files and 1.0.3.49 firmware file.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.49\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.49_for_GVC_below_1_0_1_12.zip)

After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: When you upgrade GVC3200 to 1.0.3.49 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**

- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.3.49 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.3.46

### ENHANCEMENT

- Updated IPVideoTalk application Interface. [IPVIDEOTALK APPLICATION UI]

### BUG FIX

- Fixed GVC320x does not accept “@” character in “SIP User ID” option when users configure the account information.
- Fixed GVC320x stuck issue when users try to batch delete the contacts on the device cue interface.
- Fixed GVC320x takes too long time to recover the color issue for the local video on the main screen after booting up.
- Fixed GVC320x default account option should show the corresponding new default account when users try to create new contact.
- Fixed GVC320x should not still show “Sorting by Name” for the files when users change the sorting option from “Sorting by Name” to “Sorting by Type” and exit/access the File Manager again.
- Fixed Hangouts Dialer installation process crash issue when users install the Hangouts Dialer application from GS Market without Google Play Application installed in the GVC320x.
- Fixed LDAP name does not display correctly issue when users schedule the meeting with the LDAP calling history.
- Fixed GVC320x save the scheduled conference failed issue when users schedule the conference with Google account on the Web UI.
- Fixed GVC320x should not show two different video calls on the interface when users dial an activated H.264 video call with H.265 codec enabled device.
- Fixed GVC320x restarts conference failed issue on the Web UI when users open/close presentation during the long time video conference.

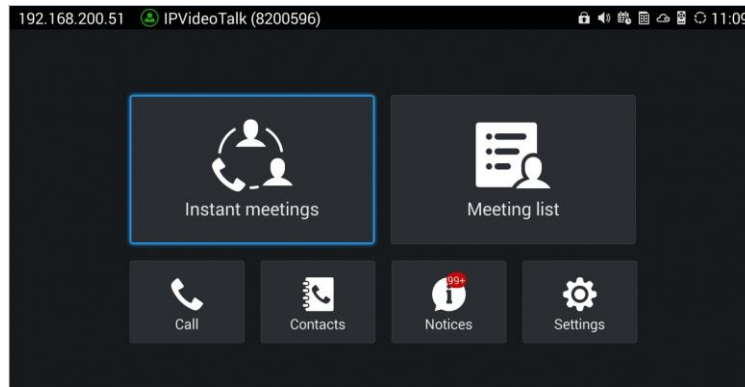
- Fixed GVC320x Camera default settings should not be changed issue after device factory reset.
- Fixed GVC320x does not have the audio/video streams issue when GVC320x is in the 3-way video conference and open/close presentation, rejoin the conference, repeatedly.
- Fixed some hardware interfaces are not recognized issue after auto reboot performance on GVC320x.
- Fixed GVC320x crash issue when GVC320x initializes auto video calls repeatedly.
- Fixed GVC320x should not return to the main screen issue after check the “Install Unknown Source” option on the device.
- Fixed video image size incorrect issue when users try to initialize video calls with more than 5 attendees with GVC320x.
- Fixed GVC320x should not show the abnormal calling control Web UI during the video call when users access the GVC320x’s Web UI calling interface during the video call.
- Fixed GVC320x should not generate gs\_phone core file after users set the auto-dialing feature on the connected GAC2500 via Bluetooth.
- Fixed GVC320x should show the “Conference is in hold” prompt when users click on “Layouts” option during the held conference.
- Fixed GVC320x should support to initialize IP Calls via TCP.
- Fixed GVC320x should not generate Pvalue\_validaticore file after ACS authentication failed for TR-069.
- Fixed GVC320x ACS LAN Addressing Type configuration does not take effect issue on GVC320x.
- Fixed GVC320x should not reboot automatically issue when ACS configures STUN server address in the GVC320x.
- Fixed GVC320x version number is not updated issue after upgrading the device, and only the u-boot version is updated.
- Fixed GVC320x status bar should not show the “Download the Firmware Failed” notification even though there is no configured Firmware Server Path.
- Fixed GVC320x loses audio/video issue during the video call under IPv6 network.
- Fixed GVC320x should not carry the VPN address in the VPN environment during registering process when the account is not set the NAT Traversal.
- Fixed GVC320x only sends the request to download the firmware file when users configure the Option 66 as HTTP in the GVC320x. The device should also send the requests to download the configuration file, CUST file, and MD5.
- Fixed GVC320x should not jump to the ringing interface during the call when users dial the GVC320x which is already in the activated call.
- Adjusted the auto upgrade setting “Auto Reboot to Upgrade without Prompt” to show the prompt and get the permission from the user for 30 seconds.
- Fixed GVC320x video frozen issue when the meeting starts for about 3 minutes, and the device needs about 4 minutes to recover.
- Fixed GVC320x NACK function does not work issue during the IPVideoTalk meeting.
- Fixed GVC320x’s prompt should be more clear after GVC320x modifies the password of personal room.

- Fixed GVC320x should not show the failed prompt when GVC320x set auto muted and join the IPVideoTalk meeting with a password.
- Fixed GVC320x's cursor displays at incorrect position when users click on the IPVideoTalk personal room password.
- Fixed GVC320x should show the display name for device itself in the IPVideoTalk conference on the Participants List.
- Fixed GVC320x does not show the IPVideoTalk account as the default account on the Call UI when users set the IPVideoTalk active/inactive, set IPVideoTalk as default account on the device UI.
- Fixed GVC320x should show "Auto Answer" to "Yes" for IPVideoTalk account when users set the "Auto Answer when Idle" to "Yes" on the GVC320x Web UI and click the prompt in device's drop-down menu.
- Fixed GVC320x cannot start the scheduled IPVideoTalk meeting issue when the device is set to "DND".
- Fixed GVC320x cannot send FEC issue when the device has 0.1% packets loss.
- Fixed GVC320x should not consider the "Space" key when users set the personal room password with "Space" key.
- Fixed GVC320x "Hands Up" button shows incorrect status when the GVC320x joins into the IPVideoTalk Webinar as panelists.
- Fixed GVC320x should show the prompt for sharing camera request when schedule meeting info window pops out.
- Fixed GVC320x starts cloud recording failed issue when DTMF window is opened during the IPVideoTalk meeting.
- Fixed GVC320x cannot hear the IVR voice "The meeting has now started" issue when SIP server replies BFCP late.
- Fixed GVC320x should not always show IPVideoTalk account not registered and "Loading data" prompt in IPVideoTalk application when users inactivate the IPVideoTalk from the GVC320x's Web UI.
- Fixed GVC320x camera button displays error issue when GVC320x enters the IPVideoTalk Webinar as a participant.
- Fixed GVC320x WebUI should send login when GVC320x receives "Token not found or already expired" message.
- Fixed GVC320x should not send RTX when it is not conferred with Asterisk on RTX.
- Fixed GVC320x should display the prompt for sharing camera request from the WebRTC host when the GVC320x is on the home page during the IPVideoTalk conference.
- Fixed the scheduled conference prompt incorrect issue on GVC320x for IPVideoTalk scheduled conference if the scheduled conference subject includes number "10".
- Fixed the tip is not reasonable issue after the GVC320x is failed to change the password when the GVC320x has a meeting is about to begin.
- Fixed GVC320x network connectivity test translation missing issue.
- Fixed GVC320x crash issue when users login the Google account in GVC320x and synchronize the meetings with the Google account.
- Fixed the compatible issues between GVC320x firmware version and IPVideoTalk application version.
- Fixed upgrading tip displaying issue on the GVC320x.

## NEW FEATURE OVERVIEW

### IPVIDEOTALK APPLICATION UI

IPVideoTalk application UI in the GVC320x 1.0.3.49 has been updated. The layouts have been updated to the screenshot below:





## FIRMWARE VERSION 1.0.3.46

### PRODUCT NAME

GVC3200, GVC3202

### DATE

11/01/2017

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.45:**  
Please upgrade your GVC3200 via HTTP/TFTP server. GVC3200 firmware 1.0.3.45 has problems about upgrading the firmware via Web UI uploading.
- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.3.46 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/BETA/GVC320x\\_1.0.3.46\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/BETA/GVC320x_1.0.3.46_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.3.46 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.46\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.46_for_GVC_1_0_1_12_to_1_0_1_41.zip)

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- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.3.46 firmware package that contains necessary transition firmware files and 1.0.3.46 firmware file.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.46\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.46_for_GVC_below_1_0_1_12.zip)

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**WARNING: When you upgrade GVC3200 to 1.0.3.46 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**

- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.3.46 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.3.24

### ENHANCEMENT

- Optimized OPUS codec upstream performance.
- Added the option to check the Participants List on GVC320x during an IPVideoTalk meeting. Users could check all participants in the current IPVideoTalk meeting. [[CHECK IPVIDEOTALK PARTICIPANTS LIST](#)]
- Added TR-069 feature in GVC320x, and added the configuration page on the Web UI. [[TR-069](#)]
- Added the prompt for IPVideoTalk Webinar preparation period before starting the meeting.
- Added the option to join back the existed meeting by one key. In this case, if the GVC320x leaves the meeting, the GVC320x could click to join back the meeting to continue/end the conference.
- Added DND forwarding feature for SIP calls.[[DND FORWARDING](#)]
- Added cloud recording control for IPVideoTalk meetings or webinars.[[CLOUD RECORDING](#)]
- Added an option to allow GVC to leave meeting itself when pressing "End" button [[LEAVE CONFERENCE](#)]
- Added an option to select G722.1c as preferred vocoder for the account to use during the call [[G722.1C CODEC](#)]
- Added a notification to inform users “The meeting will be ended in 5 minutes” during an IPVT meeting if the IPVT meeting duration will reach up to 6 hours’ maximum limitation.
- Added support for carrying BFCP media information in initial INVITE packet [[MEDIA INFO IN INVITE](#)]
- Added GS-FEC feature to improve video quality when there is packet loss during presentation.
- Modified notification for “Conf:presentation failed” to be more clarified based on specific scenarios.
- Updated latest translations on local GVC LCD and WebUI tooltips.

## BUG FIX

- Fixed Wi-Fi WPA2 KRACK bug. This fix will help to resolve the Wi-Fi security issue.
- Fixed folder/system/etc/security/cacerts-new file lost issue in GVC320x.
- Fixed wget command sometimes block forever issue when using OpenSSL.
- Fixed no hand raise button issue in IPVideoTalk Webinar when GVC320x redials the Webinar as a panelist.
- Fixed GVC320x still shows the scheduled meeting in Schedule List when GVC320x was kicked out of the IPVideoTalk meeting by WebRTC host, and redials into the IPVideoTalk meeting.
- Fixed the IPVideoTalk regular meeting should not distinguish the Panelists and Participants in the IPVideoTalk meeting.
- Fixed the lost signaling issue when GVC320x mute local audio on its Web UI. If the user mutes the local audio on GVC320x's Web UI during the IPVideoTalk meeting, the GVC320x should still send the signaling to IPVideoTalk media server.
- Fixed GVC320x cue interface stuck issue when delete a batch of contacts with remote control.
- Fixed GVC320x local video image color jumping issue.
- Fixed GVC320x cannot start issue, and the device can only go into Sunxi mode after factory reset.
- Fixed GVC320x camera turns red issue for hardware version 2.2 A.
- Fixed GVC320x has the ability to support "\$" character in SIP User ID field.
- Fixed GVC320x should show the relevant account number in the Call Log details.
- Fixed GVC320x should response for each "floorRequeststatus" request.
- Fixed GVC320x should delete the CA Certificate synchronous if the user only deletes the Certificate on Web UI or local device.
- Fixed the command "upgradeboot" cannot be found in GVC320x during SSH upgrading progress.
- Fixed GVC320x displays incorrect receiving width issue in Call Info.
- Fixed GVC320x redials out the same number issue when pressing "#" twice on GVC320x remote control.
- Fixed GVC320x cannot login the Web UI issue when the user sets the GVC320x power off and wakeup later.
- Fixed GVC320x displays the picture which is receiving via local Bluetooth in the local music player.
- Fixed GVC320x prompt tips displaying issue when schedule a meeting before the GVC320x ending the meeting.
- Fixed GVC320x still shows the second incoming call prompt during the call even though the first conversation has ended.
- Fixed the recording video lagging issue when users playback the recording file with GVC320x.
- Fixed GVC320x cannot be restarted issue from the Web UI after the long time presentation on the device.
- Fixed GVC320x camera default configuration changed issue after factory reset.
- Fixed GVC320x no audio/video issue if the GVC320x invited and removed the presentation member for multiple times.

- Fixed GVC320x audio channel error if the GVC320x device is set to auto-call.
- Fixed IPVideoTalk application crash issue in GVC320x.
- Fixed GVC320x cannot record the first few seconds issue when starting recording from the GVC320x.
- Fixed GVC320x should not generate gs\_phone core file issue when the user sets the device auto-call through the GAC Bluetooth account.
- Fixed GVC320x automatically rebooting issue during the call if the configuration path is set in the GVC320x device.
- Fixed GVC320x jumping to the calling interface issue during a call if there is an incoming call to the GVC320x device.
- Fixed GVC320x has the ability to change the fan speed if users modify the fan speed configuration.
- Fixed GVC320x could send the keep-alive RTP packets at the beginning of the call.
- Fixed GVC320x video freeze issue, the video freeze issue will keep for 3 minute.
- Fixed GVC320x end conference abnormally issue when GVC320x upgrade IPVideoTalk application during the meeting.
- Fixed GVC320x does not update the access token issue after unregistering one-time.
- Fixed IPVideoTalk application in GVC320x cannot change the password to empty issue.
- Fixed IPVideoTalk application in GVC320x should have a prompt to show the messages are over 200 items.
- Fixed GVC320x meeting list should keep the Webinar information if the Webinar steps to “preparation period”.
- Fixed IPVideoTalk application crash issue when click on the application icon.
- Fixed IPVideoTalk application errCode should show the version information if users uninstall the IPVideoTalk application.
- Fixed GVC320x keeps unmuted status in other WebRTC clients while the GVC320x mutes itself in a SIP call and then starts an instant meeting.
- Fixed GVC320x cannot hear the IVR voice “The meeting has now started” issue when the GVC320x starts an instant meeting.
- Fixed GVC320x displays the video slowly issue when the GVC320x joins into the meeting which the video images have reached the limits.
- Fixed GVC320x output UI will show the prompt when the meeting host sets someone to the Panelist.
- Fixed GVC320x modified the password of personal room failed issue even though the prompt shows the change is applied.
- Fixed the scheduled meeting disappeared issue in the meeting list in GVC320x when the meeting status is “To be hosted” in IPVideoTalk Portal.
- Fixed the cursor will jump to the beginning of the password if the user inputs more than 8 characters for the password of personal room in GVC320x.
- Fixed GVC320x fails to show the Participants List when the GVC320x joins into another GVC320x’s personal room before the meeting host.

- Fixed GVC320x should show a prompt that the GVC320x has been set to Panelist in the Webinar during the preparation period.
- Fixed GVC320x shows error tips that the meeting will be cancelled if the current meeting is not ended at the new meeting starting time, even though the meeting host is already in the new meeting.
- Fixed GVC320x should not show all the participants when the attendees list was not allowed to be displayed.
- Fixed GVC320x cannot dial out issue when the user adds a member and make the call on the Web UI during the call.
- Fixed GVC320x should not send the request information twice when the user tries to mute/unmute locally.
- Fixed the meeting preparation period prompt from “meeting” to “Webinar” in GVC320x HDMI output.
- Fixed WebRTC client cannot show “Mute by Host” prompt when the Conf Control bar disappear in WebRTC client during the Webinar preparation period.
- Fixed the meeting preparation period prompt missing issue when the GVC320x was kicked and redialed into the Webinar.
- Fixed the meeting preparation period prompt still existing issue when the GVC320x was kicked and then the Webinar started.
- Fixed GVC320x shows incorrect password hints for personal room when the personal room password is empty and the GVC320x default language is English.
- Fixed GVC320x device stuck issue when receiving scheduled meeting information and before the prompt popping out.
- Fixed GVC320x “Raise Hand” status showing “Hands up” when “Raise Hand” operation failed during the Webinar.
- Fixed GVC will unexpectedly enter sleep mode when recording local video
- Fixed GVC abnormally ends FECC mode when receiving an incoming call during FECC control
- Fixed the third-party APPs installed on the SD card cannot be backed up
- Fixed the display name shown on Call History page doesn't match the one carried in the SIP header
- Fixed the error message is incomplete when host GVC attempts to initiate more than one IPVT meetings
- Fixed the WebUI call page is stuck on “loading” if there are special characters in call history
- Fixed it incorrectly shows “anonymous” for callee during a normal call after the caller GVC receives an anonymous call from that callee
- Fixed the members in a group without phone numbers could still be scheduled to join a meeting
- Fixed it prompts “Current in a call, you cannot restore the data” when restoring a backup during idle status
- Fixed GVC cannot automatically initiate a scheduled meeting after scheduling/canceling recurring meetings for several times
- Fixed GVC keeps ringing after restoring backups from different GVC model
- Fixed Bluetooth connected GAC has no audio in/out during the long-time automatic calls

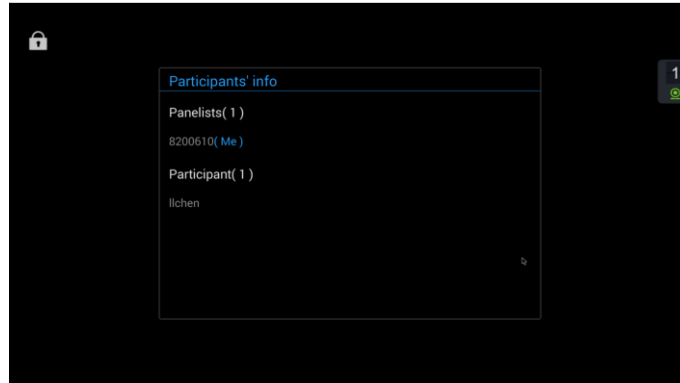
- Fixed there is an option to add to Contacts on call history page even though the member is already in Contacts
- Fixed H.323 related information cannot be restored from backup
- Fixed the layout option is still highlighted after the other participants leave the three-way meeting which is hold by the host
- Fixed GVC won't transfer the conversation during a three-way conference after pressing end button from Bluetooth connected GAC interface
- Fixed the cursor disappears under custom layout mode on all the three HDMI outputs after turning on presentation during a conference
- Fixed file type of the sent file via Bluetooth cannot be recognized properly and just shows as \*/\* on GVC
- Fixed the password does not show up on host GVC if the WebRTC host initiates the IPVT meeting ahead of scheduled time
- Fixed the phone number of the Contact member is garbled if it is left blank
- Fixed if the name of configured preset contains quotation mark, the camera will not point to saved place on GVC WebUI
- Fixed negotiation of preferred codec G722.1c is not working on audio calls
- Fixed the default frame rate on presentation mode is incompatible with settings
- Fixed the language on status bar is messed up after factory reset
- Fixed it does not show remote mode correctly on LCD screen after FECC mode is enabled on WebUI
- Fixed the IPVT meeting status still shows "to be host" even after the meeting has already been started
- Fixed the scheduled IPVT meetings cannot be manually started in advance
- Fixed i-frames sent from GVC exceed the maximum bandwidth limit at the beginning of the call during StarLeaf IOT
- Fixed the presentation during SIP meetings cannot be switched between Auto mode and PC mode if the joint IPVT meeting fails to establish
- Fixed the video frame rate sent from GVC to IPVT cloud server is not the same as the provisioned value during the IPVT instant meeting
- Fixed the uploaded video resolution is not the same as the negotiated value with IPVT cloud server
- Fixed it does not allow users to add a new participant into an existing SIP meeting using H.323 account
- Fixed GVC will generate abnormal core files after Bluetooth connected GAC dials out with automatic call mode
- Fixed there is an error message "Operation Failed" prompt on the other IPVT parties after the GVC participant resumes the call on hold during a presentation shared by WebRTC client
- Fixed it takes long time (around 20 mins) for an IPVT account to re-register to server after being locked/unlocked by IPVT admin
- Fixed the prompt message is not user-friendly when saving the custom language setting under WebUI-> Maintenance -> Time&Language page without uploading the customized language file
- Fixed WiFi connected GVC participant cannot end the call after opening and closing presentation mode multiple times in a 3-way long-time video conference

- Fixed black screen displays in 2-way video conference if GVC caller dials out using dialplan prefix (such as 100) configured at Web UI->Settings->SIP->Call page
- Fixed the reminder message of a scheduled IPVT meeting always shows on LCD if users don't press on "Yes" to make it disappear
- Fixed GVC will still establish TCP connection with previous HTTP proxy server even though the related configurations are already cleared on Web UI
- Fixed the error message "Conf:xxx failed" repeats on GVC after unplugging/plugging in GVC Ethernet cable to get re-connection with server during an IPVT instant meeting
- Fixed no presentation duration timer shows on GVC after WebRTC client opens file sharing in an instant IPVT meeting
- Fixed the scheduled IPVT meetings still display on GVC with "To be host" status even though they are already expired or ended
- Fixed the name of an ongoing meeting on GVC Web UI is changed after refreshing the web page
- Fixed on web UI, the hands-up icon is not kept highlighted after inviting another GVC to join the exist meeting
- Fixed the prompt message is not user friendly while GVC participants have no permission on the operations during an IPVT webinar
- Fixed GVC Web UI login failure after long time sleep
- Fixed the notification's language of some operation is not consistent with the web UI configuration
- Fixed the caller name is displayed incorrectly even though it's matched with an existing contact
- Fixed incorrect error message if entering spaces in Settings -> Account page
- Fixed the picture is improperly used as album cover when playing a music file under the same directory
- Fixed GVC still sends HTTP requests to server even though the configuration has changed to HTTPS on Web UI
- Fixed there is no length limitation on callee's number on GVC web UI Call page

## **NEW FEATURE OVERVIEW**

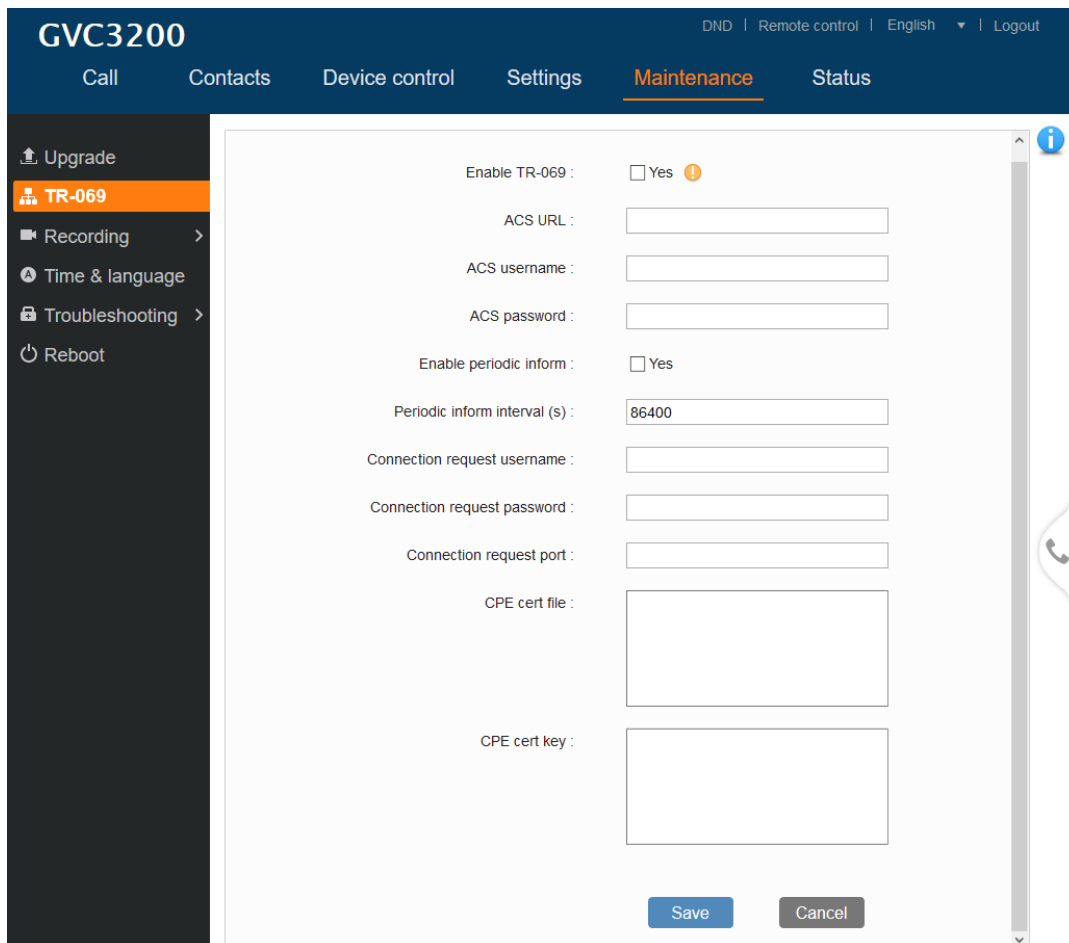
### **CHECK IPVIDEOTALK PARTICIPANTS LIST**

Users could check all participants in the current IPVideoTalk meeting. If the meeting host does not allow the participants to check all members, the participants cannot see all members in the meeting. During meeting, click on "More" option, then click on "Participants List". GVC3200/GVC3202 will show all participants in the current IPVideotalk meeting, including all participants with all types of clients.



## TR-069

Users could go to GVC320x Web UI -> Maintenance -> TR-069 to enable the “CPE WAN Management Protocol” (TR-069). The default setting is “NO”.


 A screenshot of the GVC3200 Web UI. The top navigation bar is dark blue with the title "GVC3200" and links for "DND", "Remote control", "English", and "Logout". Below this is a secondary navigation bar with tabs: "Call", "Contacts", "Device control", "Settings", "Maintenance" (highlighted in orange), and "Status". On the left is a sidebar menu with options: "Upgrade", "TR-069" (highlighted in orange), "Recording", "Time & language", "Troubleshooting", and "Reboot". The main content area is titled "Enable TR-069" with a checkbox set to "Yes" and a warning icon. Below this are several input fields: "ACS URL", "ACS username", "ACS password", "Enable periodic inform" (checkbox set to "Yes"), "Periodic inform interval (s)" (set to "86400"), "Connection request username", "Connection request password", "Connection request port", "CPE cert file", and "CPE cert key". At the bottom right are "Save" and "Cancel" buttons.

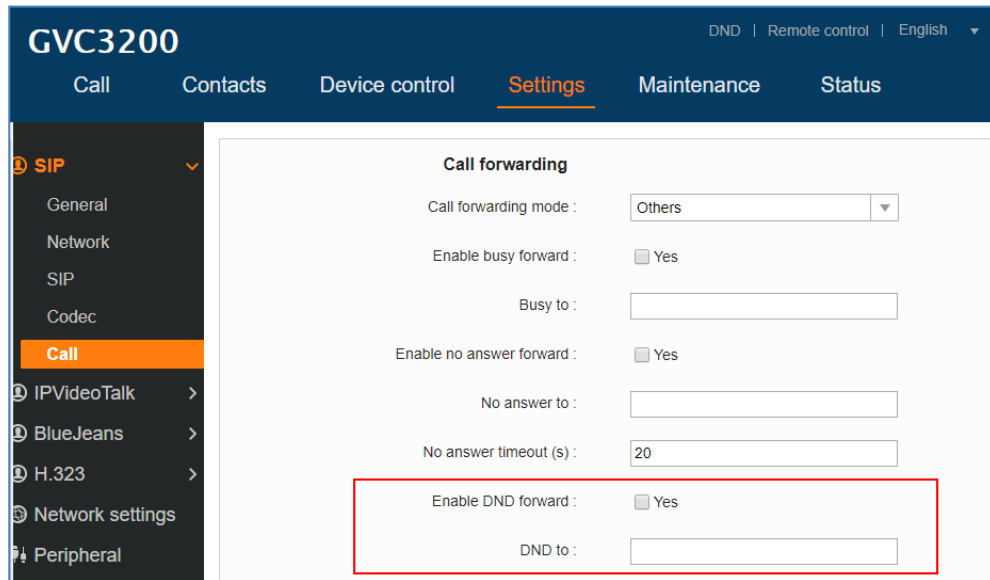
## DND FORWARDING

On GVC320x Web UI->Settings->SIP->Call page, DND forwarding is added under Call forwarding ->



Others mode. If DND forwarding is enabled, the incoming SIP calls will be automatically forwarded to the specified number on “DND to” section when DUT is on DND mode.

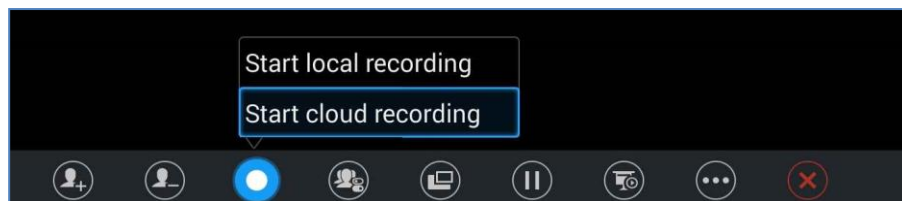
Please note DND forwarding has higher priority than busy forwarding, which means busy forwarding will only work when DUT is busy with DND forwarding disabled.




## CLOUD RECORDING

During an IPVideoTalk meeting/webinar, a new option is added under Call Screen of host GVC to allow users to control cloud recording.

- To start/stop cloud recording, users could click on “Record” button under host GVC320x LCD -> Call screen, or press **\*/\*** shortcut key on remote control.



There will be an icon  shown on the left upper corner of host GVC as well as all other participants to indicate the cloud recording is in process.

- Users could log in to IPVideoTalk Enterprise web portal -> Recordings page to View/Download/Delete the recordings for the cloud meetings/webinars.

Meetings

Recordings

Contacts

Devices

Plans

Statistics

Admin

Settings

☐ Display my scheduled meetings only

<input type="checkbox"/>	Subject	Meeting ID	Organizer	Schedule Email	Start Time	Files
<input type="checkbox"/>	IPVideoTalk Meeting	52696990	8200443 -IPVideoTalk Small...	rmwang@pioneer...	07/17/2017 07:4...	<div>DownloadDelete</div>

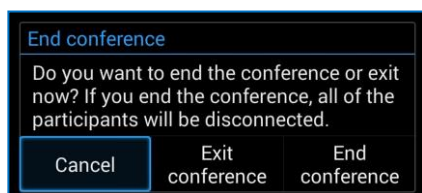
Note: There are some prerequisites to enable cloud recording features on GVC320x.

- GVC320x needs to be linked with an IPVideoTalk enterprise account.
- The subscribed IPVideoTalk plan should include cloud recording support and adequate cloud storage space for recording. Please refer to IPVideoTalk website or User Manual for the latest plan information.

## LEAVE CONFERENCE

When users press “End” button during IPVPT conferences, a new option is added to allow host GVC to leave the conference itself or end the conference.

- If “Exit conference” is selected, GVC host will leave the conference itself while the IPVPT conference will still be going on. The conference can be ended by WebRTC host or admin through web portal afterwards.
- If “End conference” is selected, the IPVPT conference will be ended and all of the other participants will be disconnected from the IPVPT server.



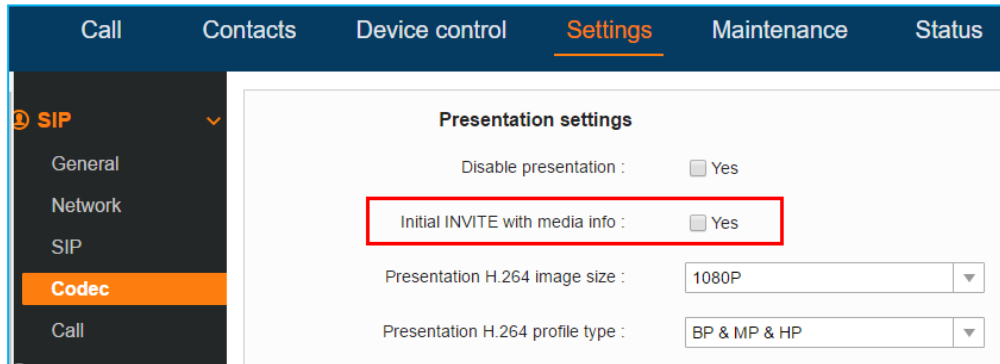
## G722.1C CODEC

Under GVC320x LCD menu-> Settings-> Account -> Codec, the codec G722.1c has been added to preferred vocoder for SIP account to use during the call. Please note the actual codec being used in the call is a negotiation result between the GVC3200/GVC3202 and the remote party.



## MEDIA INFO IN INVITE

Under GVC320x Web UI->Settings->SIP->Codec page, a new option “Initial INVITE with media info” is added to guarantee BFCP successful negotiation. If it is enabled, the initial INVITE packet sent from GVC to server will carry BFCP media information. If not, the related media info will be included in re-INVITE packet and the BFCP negotiation with some specific servers might be failed.



The screenshot shows the Grandstream Web UI interface. At the top, there is a navigation bar with tabs: Call, Contacts, Device control, **Settings**, Maintenance, and Status. On the left, a sidebar menu shows options: SIP (with a dropdown arrow), General, Network, SIP, **Codec** (highlighted in orange), and Call. The main content area is titled "Presentation settings" and contains the following configuration options:

- Disable presentation : ☐ Yes
- Initial INVITE with media info : ☐ Yes** (This row is highlighted with a red border in the original image)
- Presentation H.264 image size : 1080P (dropdown menu)
- Presentation H.264 profile type : BP & MP & HP (dropdown menu)

## FIRMWARE VERSION 1.0.3.24

### PRODUCT NAME

GVC3200, GVC3202

### DATE

01/19/2017

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.3.24 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/BETA/GVC320x\\_1.0.3.24\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/BETA/GVC320x_1.0.3.24_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.3.24 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.24\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.24_for_GVC_1_0_1_12_to_1_0_1_41.zip)

After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: Please DO NOT upgrade GVC3200 using 1.0.3.24 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**

- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.3.24 firmware package that contains necessary transition firmware files and 1.0.3.24 firmware file.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.24\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.24_for_GVC_below_1_0_1_12.zip)

After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: When you upgrade GVC3200 to 1.0.3.24 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**

- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.3.24 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.3.16

### ENHANCEMENT

- Added support for GVC to receive, accept and reject request from IPVT WebRTC host to open GVC local camera to share video [[SHARE LOCAL CAMERA](#)]
- Added some commonly used apps on system backup settings page, such as scheduled meeting and camera preset [[BACKUP APPS](#)]
- Added allowing users to choose the main feed in Custom PIP when GVC is connected to multiple monitors [[CUSTOM PIP](#)]

### BUG FIX

- Fixed recording files display abnormally while recording process is interrupted by ejecting SD cards or discharging the device
- Fixed it still shows gray status on IPVT account after manually active the account through web UI
- Fixed GVC device has no video or audio streaming output after long time Bluetooth connection with GAC which is on auto-dial mode
- Fixed DHCP 132 and 133 VLAN configurations don't take effect on GVC device
- Fixed Recording files is broken which is recorded after first recording files saved on USB device
- Fixed the system restore progress cannot continue to finish while it is interrupted by incoming calls
- Fixed participant GVCs generate core files during multi-way conference
- Fixed HDMI 1 displays a black screen while no signals on HDMI 2/3 after waking up from long-time sleep
- Fixed the protocol header on URL of GUI customization files cannot be deleted automatically when refreshing the web UI page
- Fixed device can't wake up through web UI after long time sleeping
- Fixed quick IP call is not available on web UI
- Fixed device parameter crashes after waking up from long-time shutdown mode
- Fixed device can't answer or reject incoming calls on auto-answer mode
- Fixed prompt error message is incorrect while renaming files on a read-only SD card

- Fixed configured name of preset camera position cannot be displayed
- Fixed can't make IP call if it is selected to redial from call history list
- Fixed inappropriate message prompts when downloading the exist apps from GSMarket
- Fixed presentation video is abnormal during a circular conference
- Fixed it does not show sync call interface on Bluetooth connected GAC when GVC transfer calls are rejected
- Fixed device automatically jumps to setting interface after change language configurations
- Fixed display name which configured for IPVT account is not working on webRTC participant list
- Fixed wrong tips prompt if users manually start a scheduled IPVT meeting on a GVC that's already on a call
- Fixed GVC number is not displayed on web UI conference page after initiate an instant meeting
- Fixed non-exist IPVT numbers can be dialed out by adding "90" as prefix
- Fixed GVC cannot dial out an IPVT number which is longer than 40 characters and receives an error message
- Fixed inappropriate error messages prompt when GVC redials an instant IPVT meeting
- Fixed GVC video ratio is abnormal when there are 5 or more participants in the meeting
- Fixed IPVT server can't automatically detect host IPVT account's status 15 mins before meeting starts
- Fixed it cannot add new member during an IPVT meeting if the operation on remote control is too quick
- Fixed packet loss rate shows "N/A" for a while during a long time video conference when participant hold/unhold multiple times
- Fixed PIN code is not required when dialing in a PIN protected conference room with configuration video resolution as VGA
- Fixed some strings do not have proper Chinese translations
- Fixed device download contacts from HTTP server twice automatically after reboot
- Fixed contacts info on call history does not sync with local device after the contact name has been deleted
- Fixed conference control APK stops running after GAC Bluetooth connects GVC
- Fixed device cannot sleep/power off/reboot while local presentation mode is set to background running application
- Fixed the third party apps downloaded from GS Market cannot be upgraded if there is any latest version installed
- Fixed URI format call cannot be made through web UI
- Fixed only one way video conference is established while participant turns off its video before it joins the meeting, then turns it on after meeting is started
- Fixed there is no error tips prompt while host GVC tries to initiate another IPVT meeting after leaving the previous meeting in process
- Fixed call details info displays as no data on local device when GVC restarts the IPVT instant meeting if WebRTC participant refresh webpage during first instant meeting
- Fixed device keeps sending BFCP messages to IPVT server after it is kicked out by new WebRTC host

- Fixed downloaded language file is not correct after language file is updated on IPVT server
- Fixed raise hand status on GVC is not synced with IPVT server
- Fixed displayed name shows on IPVT meeting is not the same as configuration which is long-length numbers
- Fixed there is no DND tone ringing when incoming H.323 call is blocked
- Fixed small icons of files disappear while they are copied from SD card to external SD
- Fixed the scheduled conference app can select more than limited 8 members to join the meeting
- Fixed device can establish another SIP call when it is still on Skype app call
- Fixed DTMF digits are not recognized while on a H.323 conference call with Polycom AVT solution
- Fixed File Manager app will return back to Application page after inserting SD card
- Fixed IPVT meeting duration time in call history always display 0 sec
- Fixed Call details info contains host code on participant GVC during IPVT meeting
- Fixed inviting up to maximum allowed members of participant to join IPVT meeting does not work
- Fixed camera lens position is stuck on bootup
- Fixed it should not prompt error message "Call failed, no response" while redialing a call
- Fixed the presentation videos freeze and crash on participant GVC during a long-time 5-way video conference
- Fixed missed scheduled calls during power-off are still dialed automatically
- Fixed device keeps ringing that cannot be answered or rejected after long time sleep on auto-answer mode
- Fixed added some common used apps system backup settings page, such as scheduled meeting and camera preset
- Fixed the preset name configured via webUI is not sync to local device
- Fixed added option to allow conference attendees raise hand and show indication in screen for mute/talk
- Fixed allow choosing the main feed in Custom PIP when GVC is connected to multiple monitors
- Fixed DTMF digits are not recognized while on a H.323 conference call with Polycom AVT solution
- Fixed device shows dual video screens for about 10s after the other participant GVC opens presentation during IPVT meeting
- Fixed raise hand icon is not highlighted on web UI during an IPVT meeting
- Fixed gray suspend camera icon that is on inactive status could still be clicked after closing local camera during an IPVT meeting
- Fixed local GVC sends duplicate mute INFO messages to IPVT server when there are some WebRTC clients attendees
- Fixed error message "The meeting was ended" prompts twice if users manually ends an being-recorded IPVT meeting via web UI
- Fixed after resuming a SIP&H.323 mixed call, the presentation option on conference configuration bar will abnormally turns gray
- Fixed it will stop upgrading if users uncheck "complete upgrade" option and manually upload firmware
- Fixed presentation video from WebRTC will not be displayed on local GVC after users hold/resume IPVT meeting then choose PC mode to display local GVC presentation

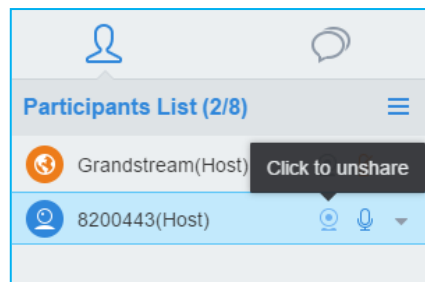
- Fixed the message “Sorry, Google play has stopped” appears during a long-time three-way conference
- Fixed tooltips of two opposite options are the same related to “Enable Enterprise Contacts Backend Matching”
- Fixed on StartLeaf apps, i-frames from the GVC exceed the maximum bandwidth limit set at the beginning of the call
- Fixed it appears OLED process error after long-time automatic shutdown/wakeup
- Fixed device stops sending ARP inquiries after obtaining IP address via WIFI connection with DHCP server
- Fixed it abnormally appears duplicate meeting logs on local schedule page while GVC cancels a recurring scheduled IPVT meeting
- Fixed content sharing between GVC and StarLeaf client doesn't work.

## NEW FEATURE OVERVIEW

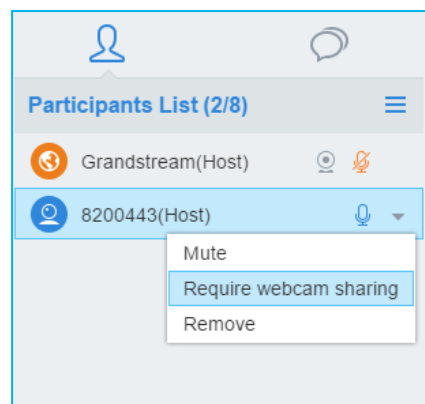
### SHARE LOCAL CAMERA

During IPVT meetings, WebRTC host can control the local camera of GVC attendees and GVC can accept or reject the camera sharing request.

- WebRTC host can close camera of GVC attendee to prevent it from uploading local video streaming to IPVideoTalk server.

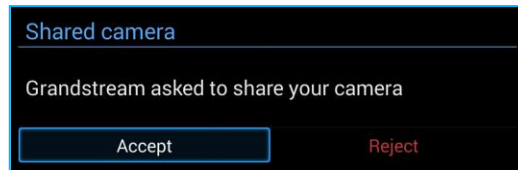


- WebRTC host can also invite GVC to share local camera.




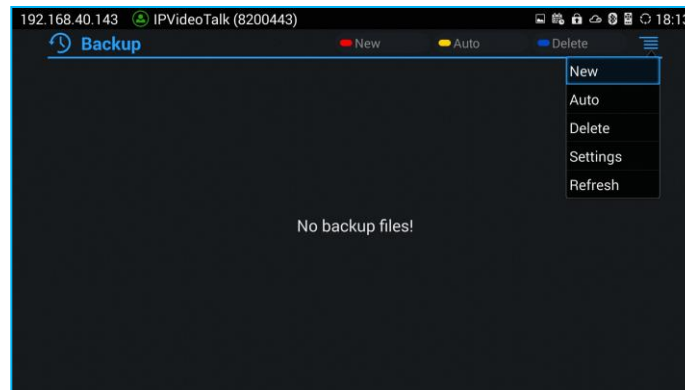


This will request permission from local GVC attendees. On the GVC, the user can “Accept” or “Reject” the request. If accepted, the GVC video will be shared in the meeting.

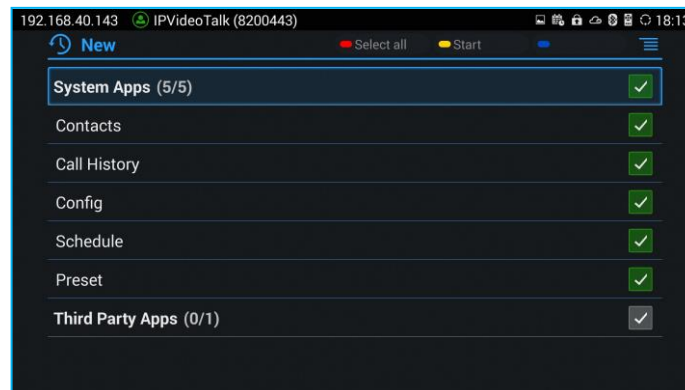


## BACKUP APPS

Under GVC320x LCD menu-> Applications-> Backup, some commonly used apps has been added for backup purpose. Press MENU button  on remote control and select “New” to create a new backup.



From System Apps list, the user can choose which commonly used apps need to be backed up, such as Contacts, Call History, etc.



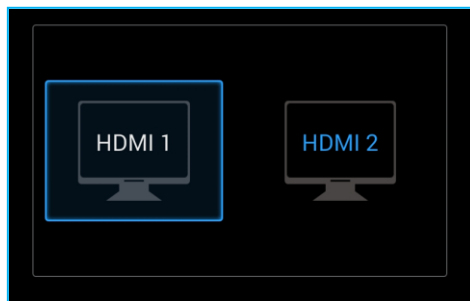
## CUSTOM PIP

During a video conference, the user could custom screen layout to specify the monitor from multiple connected HDMI outputs to display particular video feeds.

- Under GVC Call screen -> Layout -> PIP, the user could choose which video feed needs to be specified.



- A selection window for the available monitors will be popped up. For example, if the user chooses local feed at former step, once HDMI 1 is selected here, the local video streaming will be displayed on HDMI 1 connected monitor.



## FIRMWARE VERSION 1.0.3.16

### PRODUCT NAME

GVC3200, GVC3202

### DATE

12/02/2016

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.3.16 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/BETA/GVC320x\\_1.0.3.16\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/BETA/GVC320x_1.0.3.16_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.3.16 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.16\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.16_for_GVC_1_0_1_12_to_1_0_1_41.zip)

After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: Please DO NOT upgrade GVC3200 using 1.0.3.16 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**

- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.3.16 firmware package that contains necessary transition firmware files and 1.0.3.16 firmware file.  
[http://firmware.grandstream.com/BETA/GVC3200\\_1.0.3.16\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/BETA/GVC3200_1.0.3.16_for_GVC_below_1_0_1_12.zip)

After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: When you upgrade GVC3200 to 1.0.3.16 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**

- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.3.16 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.3.8

### ENHANCEMENT

- Added option to adjust USB External Sound Card TX and RX gain on GVC320x WebUI. [\[USB EXTERNAL SOUND CARD\]](#)
- Added coredump related settings to view, edit and download coredump files. [\[COREDUMP GENERATION\]](#)
- Added option “Enable Presentation Automatically When HDMI/VGA plugged” to force GVC320x to switch to presentation mode automatically. [\[AUTO ENABLE PRESENTATION MODE\]](#)
- Added “Hand up/down” feature for IPVideoTalk conference. [\[HAND DOWN/UP ON IPVT MEETING\]](#)
- Added support for user to power off the device immediately during a call. [\[POWER OFF DURING A CALL\]](#)
- Added option “Pause uploading” on configure control panel during an IPVideoTalk meeting. [\[STOP VIDEO UPLOADING\]](#)
- Added support for users to move apps to external SD card. [\[MOVE APP TO SD CARD\]](#)

### BUG FIX

- Fixed The date display format on Web UI->Call history page is not consist with configurations
- Fixed GVC320x response is slow during call or presentation requests on LCD screen call interface
- Fixed Account status shows abnormally after multiple automatic wakeups
- Fixed “Delete all” recording files on WebUI failed to erase all recording files while the number of exist recording files exceed 100
- Fixed Video calls abnormally switches to audio calls after host GVC320x hold/unhold for several times during a long time conference
- Fixed GVC320x incorrect parses notify messages which has extra blank spaces
- Fixed The built-in applications icons cannot be hidden by configuration on GUI configuration Tool
- Fixed The video resolution of a 5-way batch call abnormally downgrades to 720p from configured 1080p
- Fixed GVC320x fails to redial a member that has been deleted from existing call

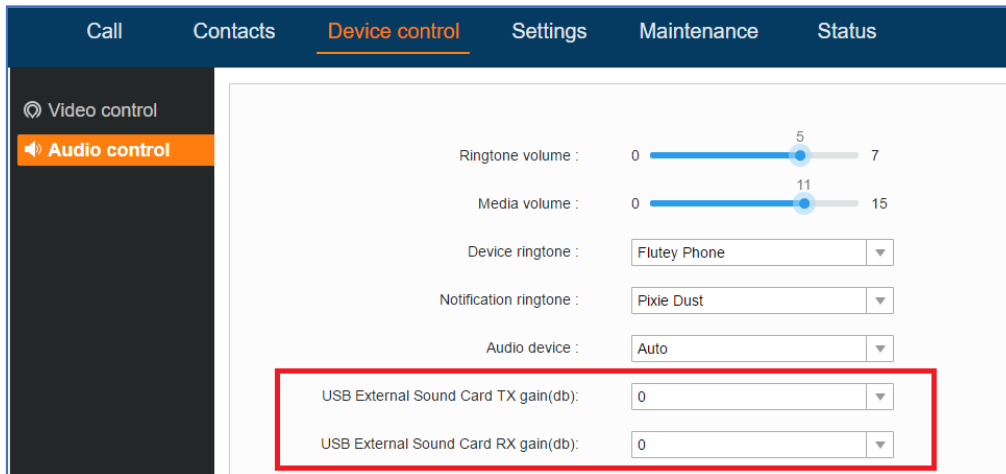
- Fixed Suspend feature on WebUI does not work on IPVT instant meeting
- Fixed No signal displayed on HDMI output after multiple times shutdown and restart
- Fixed GVC320X remains at layout setting interface after meeting ended when it's connected to GAC2500 via USB cable
- Fixed Mute All icon doesn't sync to participant GVC320X status bar after host GVC320X enables "mute all" on its WebUI
- Fixed The codec related settings under GVC320X LCD-> Accounts will be abnormally disabled after setting "Disable presentation"
- Fixed GAC connected to GVC320X via Bluetooth is still at call interface after all participants leave the conference
- Fixed The prompt error information is not consistent with current specific configurations
- Fixed The H323 call is not muted after configuring "Auto mute on incoming call" on GVC320X LCD-> Settings -> Call features
- Fixed The abnormal error files are generated during GVC320X conference with GAC connected via Bluetooth
- Fixed Participant GVC320X does not display PIN code interactive interface to join a locked conference while host GVC320X is receiving presentation from other participant
- Fixed The prompt error message of instant IPVT meeting is not user-friendly while the GVC320X firmware is too low
- Fixed The IPVT server send wrong error message to GVC320X when IPVT account is frozen
- Fixed GVC320X fails to add new member through webUI during a two-way IPVT conference
- Fixed The video suspend icon will abnormally become enabled when users "suspend call" on webUI during IPVT calls
- Fixed GVC320X does not send out local video steaming to IPVT server on an instant meeting
- Fixed It still displays last frame of presentation on other participant GVC320X even though presentation mode is already turned off on host GVC
- Fixed It does not work to start IPVT meeting manually on GVC320X when GVC320X is set on DND mode
- Fixed The H323 video conference call can not be established on GVC320X by accepting calls from GAC2500 connected to GVC320X via Bluetooth
- Fixed GVC320X can not redial the member which rejects its call before
- Fixed It takes long time to jump to talking interface after GAC2500 answers the call in BT cascade mode
- Fixed The contact name is still displayed in call history list even after it is deleted from GVC320X Contacts
- Fixed The error prompt message and error code are incorrect in IPVT instant meeting
- Fixed Newly added member cannot receive presentation from host during H323 conference
- Fixed It fails to unlock GVC320X by re-entering correct PIN code after deleting previous wrong PIN
- Fixed GVC320X will not receive calls from IPVT server and initiate the meeting automatically if WebRTC host the meeting

- Fixed It does not show “Display name” of GVC320X which was configured via webUI on IPVT participant list

## NEW FEATURE OVERVIEW

### USB EXTERNAL SOUND CARD

Under GVC320x web UI -> Device control -> Audio control, two options are available for adjusting USB External Sound Card.

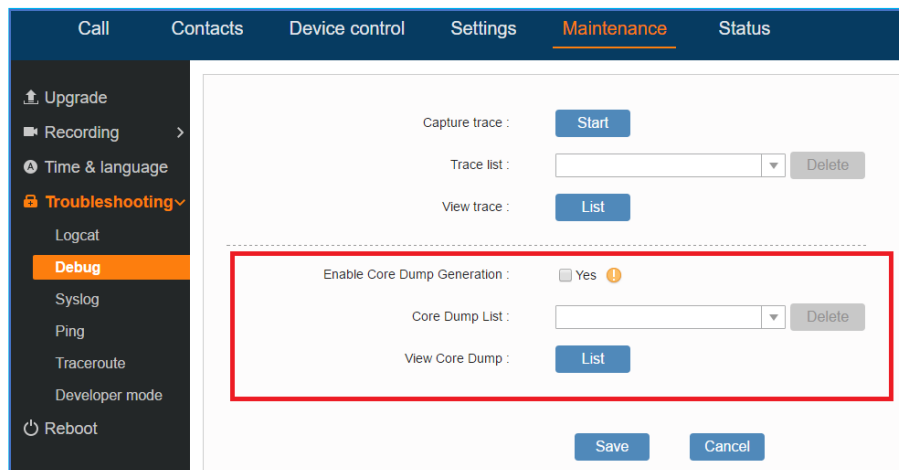


The screenshot shows the 'Audio control' section of the webUI. The 'USB External Sound Card TX gain(db)' and 'USB External Sound Card RX gain(db)' settings are highlighted with a red box. Both are currently set to 0.

- TX gain(db): the volume that GVC320X sends to other remote parties will be adjusted.
- RX gain(db): the volume that GVC320X receives from other remote parties will be adjusted.

### COREDUMP GENERATION

There are coredump configurations added under webUI -> Maintenance -> Troubleshooting -> Debug page to enable users to control whether generating coredump files or not when apps crash. It also allows users to view/download/delete existing coredump files.

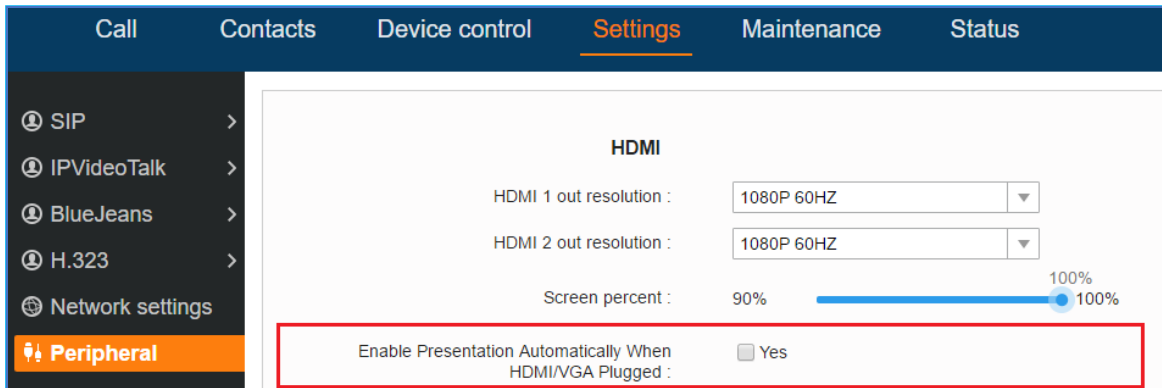


The screenshot shows the 'Debug' section of the webUI. The 'Enable Core Dump Generation' section is highlighted with a red box. It includes a checkbox for 'Enable Core Dump Generation' (checked), a 'Core Dump List' dropdown menu, and a 'View Core Dump' button.

### AUTO ENABLE PRESENTATION MODE

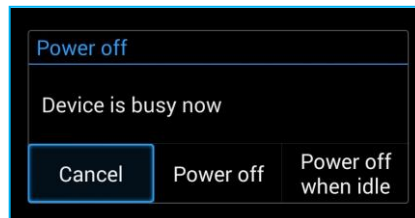
Under Web UI ->Settings -> Peripheral, an option “Enable Presentation Automatically When HDMI/VGA plugged” is added for user to bring up presentation mode automatically when HDMI/VGA is plugged in.

- When the option is enabled, the GVC320X will automatically goes to Presentation mode.
- When the option is disabled, the GVC320X will invite user to choose "OK" by default, also if Timeout (30s) is reached, the GVC320X should switch to presentation mode automatically.




### POWER OFF DURING A CALL

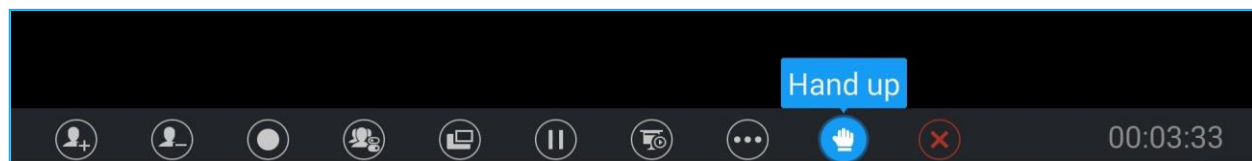
During the meeting, if the user presses Power ON/OFF button, a new dialog will be prompted that allows user to end the current call and shutdown GVC320X immediately. Choosing “Power off” to end the call and power off the GVC320X immediately, or choose “Power off when idle” to shut down the device after the exist call is ended.



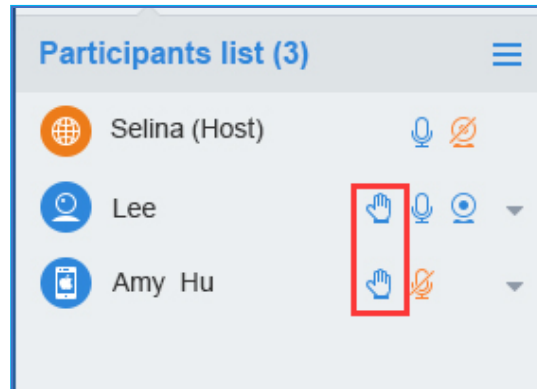
### HAND DOWN/UP ON IPVT MEETING

If GVC320X joins an IPVideoTalk meeting as a participant and also the host is any webRTC client, the


participant could click on button  on GVC320X LCD -> Call screen to raise hand to attract attention from host that he/she wants to be unmuted or needs any help.

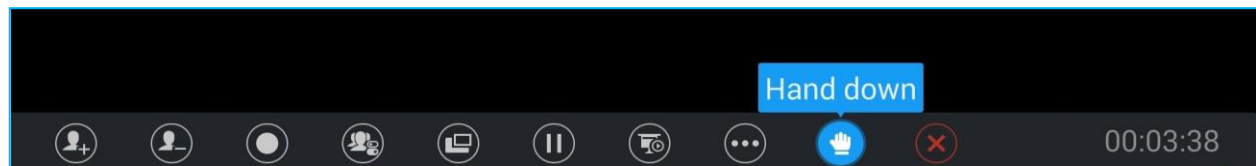


The raised hand status of GVC320X participants could be checked from Participants List on host webRTC client, as the figure shows below:

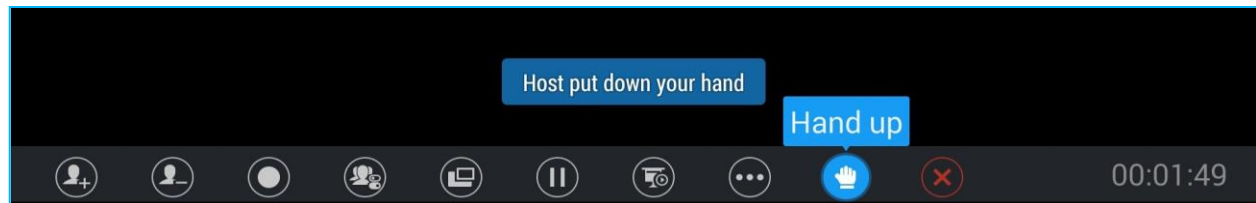


The raised hand could be put down by participant itself or webRTC host.


- Participant GVC320X could hand down itself by clicking on button  again.

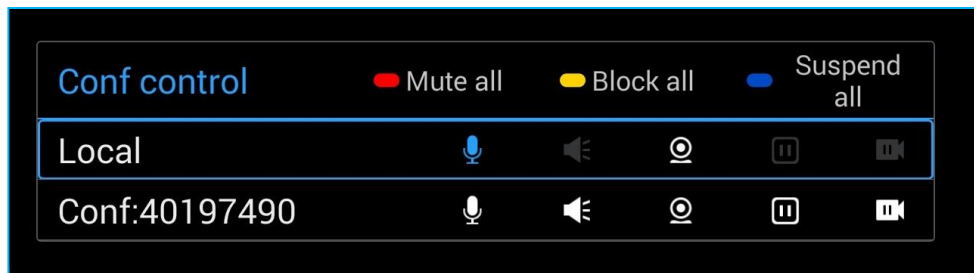


- WebRTC host could put down GVC's hand.



## STOP VIDEO UPLOADING

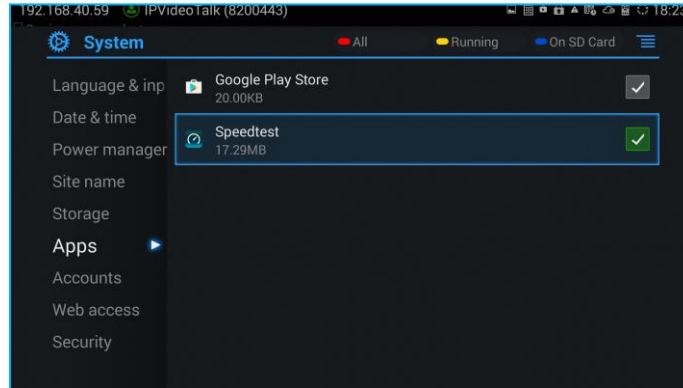
Under GVC320X LCD -> Call screen -> Conf control, the user could prevent GVC320X from uploading local video streaming to IPVideoTalk server during an IPVideoTalk meeting by clicking on icon . Other participants will not receive any video streaming from this GVC, and it will switch to 1-way video.



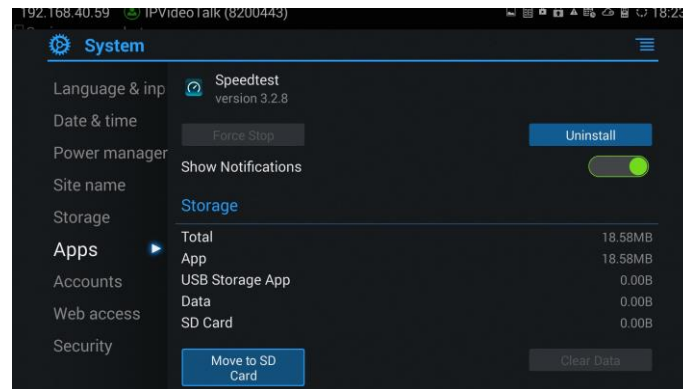


## MOVE APP TO SD CARD

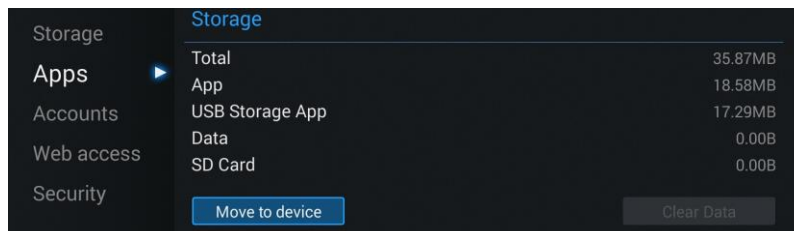
The apps that are not built-in on GVC320x could be moved to external SD card by settings under GVC320x LCD -> Settings -> System -> Apps page. The user could check the apps list on the external SD card by pressing the Blue shortcut key on the GVC320X remote control.



Choose the target app that needs to be moved to SD card to see detailed information. Then Click on “Move to SD card” to make the change take effect. After configuration, the app will not be listed on GVC320X device after the external SD card is ejected.



To move the app back to GVC, the user could just click on “Move to device” on the detailed information page for this app on GVC320x LCD -> Settings -> System -> Apps page.



## FIRMWARE VERSION 1.0.3.8

### PRODUCT NAME

GVC3200, GVC3202

### DATE

10/07/2016

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.3.8 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/GVC320x\\_1.0.3.8\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/GVC320x_1.0.3.8_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.3.8 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/GVC3200\\_1.0.3.8\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/GVC3200_1.0.3.8_for_GVC_1_0_1_12_to_1_0_1_41.zip)

After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: Please DO NOT upgrade GVC3200 using 1.0.3.8 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**

- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.3.8 firmware package that contains necessary transition firmware files and 1.0.3.8 firmware file.  
[http://firmware.grandstream.com/GVC3200\\_1.0.3.8\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/GVC3200_1.0.3.8_for_GVC_below_1_0_1_12.zip)

After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.

**WARNING: When you upgrade GVC3200 to 1.0.3.8 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**

- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.3.8 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.1.74

### ENHANCEMENT

- Added support to use IPVideoTalk server with MCU
- Added IPv6 support [[IPV6 SUPPORT](#)]
- Added recording storage selection under web UI->Maintenance->Recording->Settings. [[RECORDING STORAGE SELECTION](#)]
- Added recording search function under web UI->Maintenance->Recording. [[SEARCH RECORDING FILE](#)]
- Added conference preset setting for schedule. [[CONFERENCE PRESET](#)]
- Added interface detection in setup wizard. [[INTERFACE DETECTION IN SETUP WIZARD](#)]
- Added option “Auto mute on entry”. [[AUTO MUTE ON ENTRY](#)]
- Added DHCP option 132 and DHCP option 133 support. [[DHCP OPTION 132 AND DHCP OPTION 133](#)]
- Added Video packetization mode for SIP account and BlueJeans account [[VIDEO PACKETIZATION MODE](#)]
- Added GUI customization settings for using CUST file [[CUST FILE SETTINGS](#)]
- Added option “Use Grandstream GAPS” for config file downloading [[USE GRANDSTREAM GAPS FOR CONFIG FILE DOWNLOADING](#)]
- Added option “Validate Certification Chain” under webUI->Settings->SIP [[VALIDATE CERTIFICATION CHAIN](#)]
- Added support for users to upload trusted CA certificate [[TRUSTED CA CERTIFICATES](#)]
- Added option “HDMI 2 out resolution” in webUI->Settings->Peripheral and LCD->Settings->Peripheral [[HDMI 2 OUT RESOLUTION](#)]
- Added prompt to confirm whether to end active meeting when the user presses END button on web UI or LCD to end the meeting. If selecting “Yes”, the meeting will be ended. Otherwise it won't be ended.
- Added language translations for certain languages such as Spanish, French, Italian and etc.

## BUG FIX

- Fixed Device will create duplicate backup file for the automatic backup file after power cycle
- Fixed The status bar displays wrong default account after deactivating SIP account, selecting IPVideoTalk account as default account and then activating SIP account
- Fixed Onscreen keyboard is not hidden automatically after deleting lock screen password
- Fixed Device shows wrong prompt when exporting contacts to a non-existing path
- Fixed Screenshots from camera does not generate screenshot folder after erasing SD card
- Fixed After deleting screen lock from webUI when device in lock status, the device shows locking screen that requires sliding to unlock
- Fixed Pressing SEND button will prompt DND enabled after users presses MUTE button in lock screen
- Fixed Device should remain in contacts interface after finishing the call by calling the contacts
- Fixed WebUI and local UI shows different number for H.323 account number
- Fixed Wrong prompt is displayed when using IPVideoTalk account to share presentation in IPVideoTalk meeting
- Fixed GVC320X can't clear failed line after the same GVC320X caller calls in to the GVC's IPVideoTalk account again
- Fixed GVC320X will exit conference interface and go back to idle screen during active meeting if there is a missed scheduled meeting prompt
- Fixed GPU exception causes OLED freeze issue
- Fixed Wrong prompt is displayed when clicking on delete after already deleting all files in backup app
- Fixed The yellow button status is not updated after deleting some files in backup app
- Fixed No notification message after one participant leaves meeting in multi-parties meeting
- Fixed Call records in dialing interface is loading slowly when call history and contacts have too many records
- Fixed When searching result is not accurate after entering keyword to searching contacts
- Fixed A red box flashes when playing video after browsing images in FileManager
- Fixed Ethernet link status displays wrong in SSH interface
- Fixed There is no error prompt after entering invalid Email address when scheduling meeting using Google account
- Fixed The detailed information in scheduled meeting is displayed incomplete
- Fixed H.323 setting shows account name and it cannot be configured when discovery mode is set to manual
- Fixed The device is not redirected to the right interface when installing app while lack of storage space
- Fixed Upgrading path not correctly saved after setting the path with protocol header
- Fixed The speaker icon has no content in top status bar when external speaker is connected
- Fixed Device cannot obtain network connection via DHCP after downloading a config file with WiFi locked
- Fixed Recovery time is too long via HTTP/HTTPS/TFTP in rescue mode
- Fixed Cannot make calls on web UI and DND button doesn't work when logging in web UI as end user
- Fixed SIP account name configured in web UI is not refreshed on the left panel

- Fixed Device shows wrong layout after turning on presentation, opening FECC and then another participant puts the call on hold and resumes the call
- Fixed The previous closed FECC control interface shows up automatically after connecting HDMI 3
- Fixed Wrong layout shows up after answering incoming call in FECC mode
- Fixed Device still stays at presentation interface after opening FECC in presentation mode
- Fixed Device does not return to presentation interface after opening presentation, FECC control and then pressing PTZ button
- Fixed Presentation icon is not lighted after presentation is disabled
- Fixed Filter characters doesn't take effect
- Fixed Remote control connection status is incorrect after completing recovery mode
- Fixed Hold button in call interface is bright after the cursor is moved to the grey button and then unhold
- Fixed Onscreen keyboard disappears if there is incoming call when searching in FileManager
- Fixed Clicking Last/Next with the touch pad cannot toggle pictures in FileManager
- Fixed Entering certain special characters will prompt wrong message "Does not support emoticons"
- Fixed Cannot receive video from Cisco Codian conferencing system
- Fixed The dial plan not matching prompt will not display is using onscreen keyboard to enter number
- Fixed The device will not display the amount of missed call if the caller's display name is too long
- Fixed The device generates core files after sleep mode and then waking up by remote control
- Fixed The device still shows drop-down status on top status bar when there is an incoming call from third party app
- Fixed Web UI contacts page has some information display abnormally
- Fixed The call features using star code is filtered after adding a new call to exiting call
- Fixed The device does not request to upgrade cust file
- Fixed Using call features to enable call forwarding will activate wrong forwarding function
- Fixed Clicking on SD card or USB device icon on top status bar will exit notification interface
- Fixed Device prompts "Please insert SD card" after deleting voicemail notices from top status bar drop-down menu and quickly entering call interface
- Fixed Some of the keys on remote control cannot make notification bar disappear as expected
- Fixed Device will automatically exit Schedule app interface after manually starting a meeting and ending the meeting in Schedule app
- Fixed No ringback tone and ringing tone when using Skype for Business to establish call
- Fixed Incoming call that has caller ID without + country code can't match local contact which I stored with + country code format
- Fixed HDMI 3 output randomly has no signal when plugged in for the first time after reboot
- Fixed Upgrading progress bar appears twice in local UI top status bar when downloading firmware for upgrading
- Fixed If connecting GAC2500 to GVC320x via USB during call established using the GAC2500's Bluetooth account, the USB connecting interface shows wrong volume
- Fixed Some information in webUI Contacts page are not displayed correctly
- Fixed There is no error prompt when operating external SD card that has been manually locked before it's plugged in

- Fixed FileManager folder icon is changed to video thumbnail after exporting recording files to FileManager
- Fixed When previewing images from FileManager some options are still in English while the system language is Chinese
- Fixed Adding member interface in webUI contains “undefined” account when deactivating BlueJeans account
- Fixed Calling dialog disappears after redial H.323 call
- Fixed Adding direct IP call into existing call in webUI will prompt dialplan not matching
- Fixed Failed to delete screen lock password

## NEW FEATURE OVERVIEW

### IPv6 SUPPORT

The GVC320x now supports both IPv4 and IPv6. The IPv6 setting is under GVC320x web UI->Settings->Network Settings, or GVC320x LCD->Settings->Network->Ethernet. Users can select prefer IPv4 or prefer IPv6. For IPv6, users can select “Auto-configured” or “Statically configured”.

**IPv6**

IPv6 address : Auto-configured ▼

DNS server 1 :

DNS server 2 :

Preferred DNS server :

**IPv6**

IPv6 address : Statically configured ▼

Static IPv6 address :

IPv6 prefix length : 64

DNS server 1 :

DNS server 2 :

Preferred DNS server :

When IPv6 is used on GVC320x, the following format needs to be used:

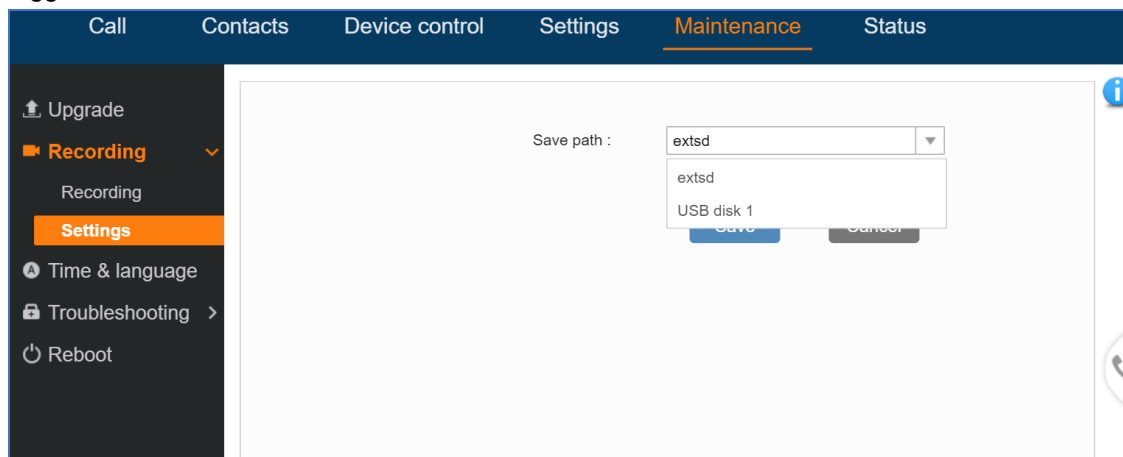
- To configure IPv6 address, DNS server 1, DNS server 2 and Preferred DNS server, enter the IPv6

address in the format of 2001:db8:1:2::3.

- To visit web UI, enter the IPv6 address in the format of [2001:db8:1:2::3] in web browser.
- To configure SIP address, enter the IPv6 address in the format of [2001:db8:1:2::3] for SIP server.

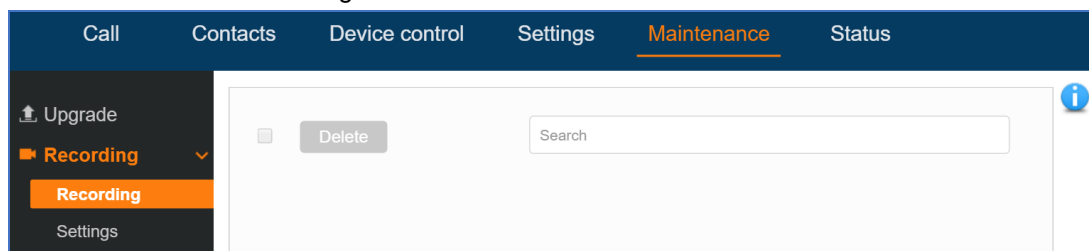
## RECORDING STORAGE SELECTION

Under GVC320x web UI->Maintenance->Recording->Settings, an option “Save path” is available for users to select the path to save the recording file. The user can select external SD card or USB card when they are plugged in.



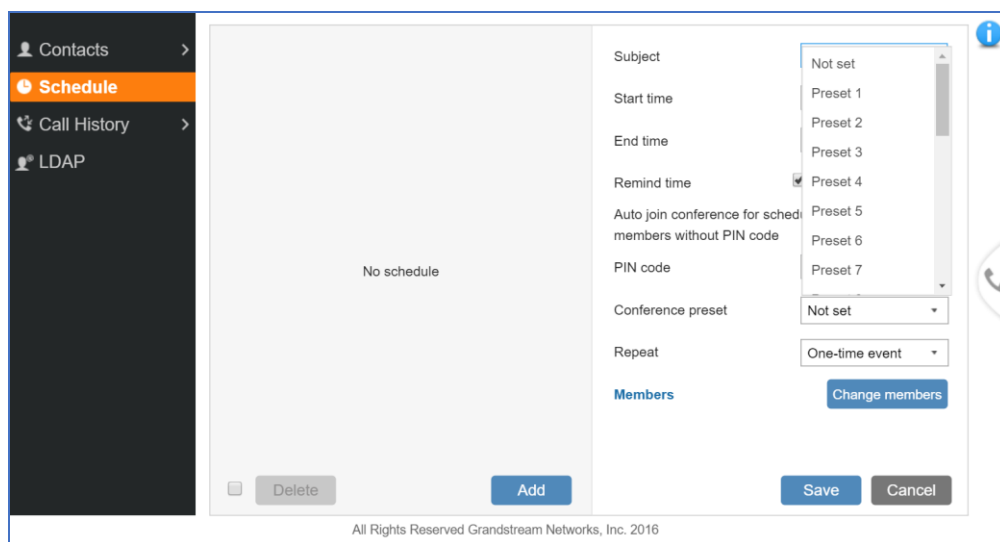
## SEARCH RECORDING FILE

Under GVC320x web UI->Maintenance->Recording->Recording, in the “Search” field, enter the keyword to search for the available recording file.

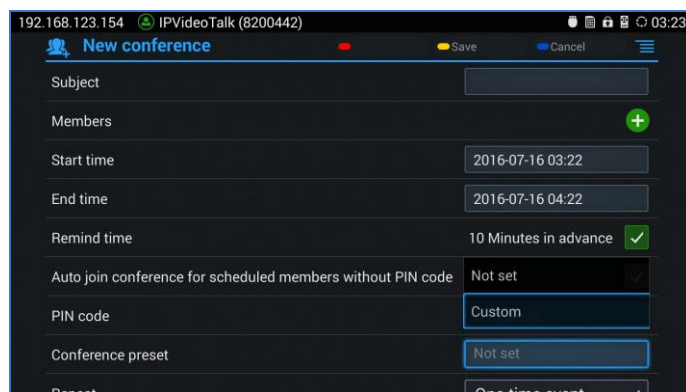


## CONFERENCE PRESET

Under GVC320x web UI->Contacts->Schedule, when adding or editing a conference, there is an option “Conference Preset” for users to select a camera preset. When the scheduled conference starts, the GVC320x’s camera will be automatically placed to the preset position.



This option is also available in GVC320x LCD->Schedule when adding or editing a conference. Click on “Custom” in below figure and you will be redirected to preset setting interface to configure preset and make selection.



Before using this feature, please make sure you have preset customized already. Preset setting is available in GVC320x webUI->Device Control->Video Control->Preset settings, or in GVC320x LCD->Applications->Camera and press red shortcut key on GVC320X remote control to configure “Preset”.

### INTERFACE DETECTION IN SETUP WIZARD

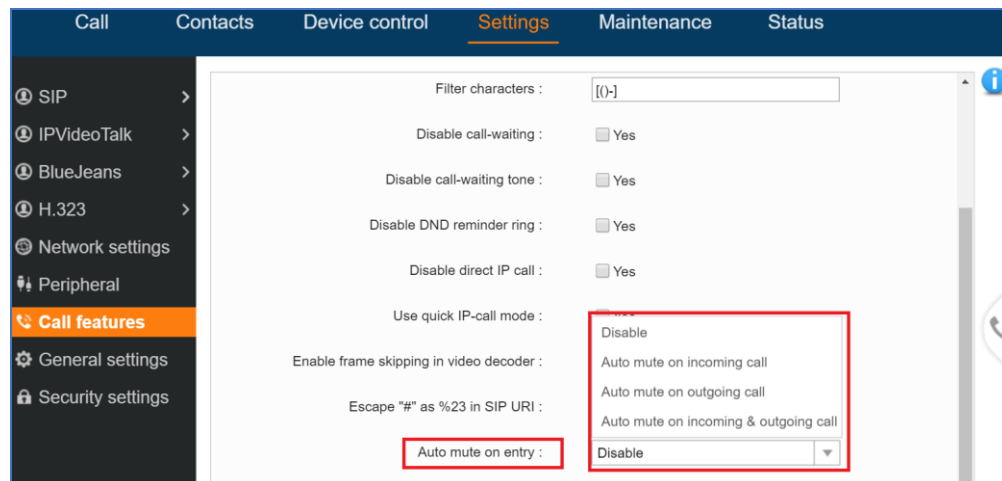
In the GVC320x setup wizard, an interface detection is available for users to check the interface connection status. The setup wizard can also be accessed from GVC320x->LCD->Applications->Setup Wizard.





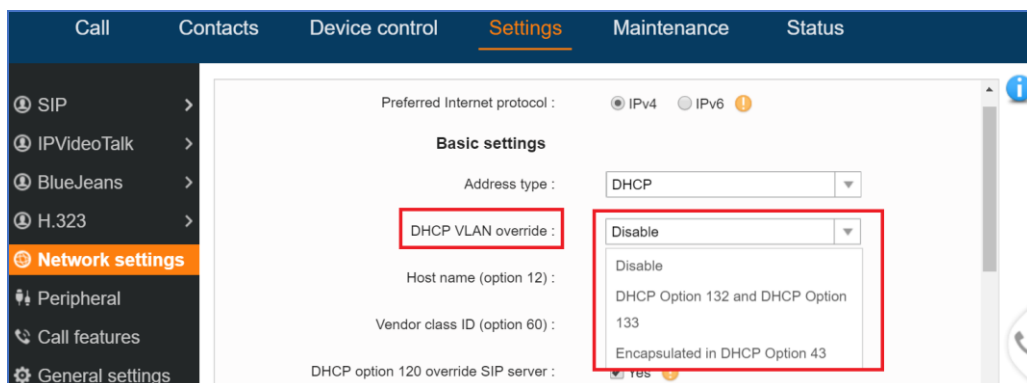
### AUTO MUTE ON ENTRY

On GVC320x web UI->Settings->Call Features, option “Auto mute on entry” allows users to select whether to enable MUTE on incoming call or outgoing call. If enabled, the GVC320x will become automatically muted once the incoming call or outgoing call is established. The default setting is “Disable”.



### DHCP OPTION 132 AND DHCP OPTION 133

DHCP Option 132 defines VLAN ID and DHCP Option 133 defines priority tag ID. GVC320x supports DHCP VLAN override via DHCP Option 132 and DHCP Option 133, or encapsulated DHCP Option 132 and DHCP Option 133 in DHCP Option 43. This configuration is under GVC320x web UI->Settings->Network Settings: “DHCP VLAN override”.

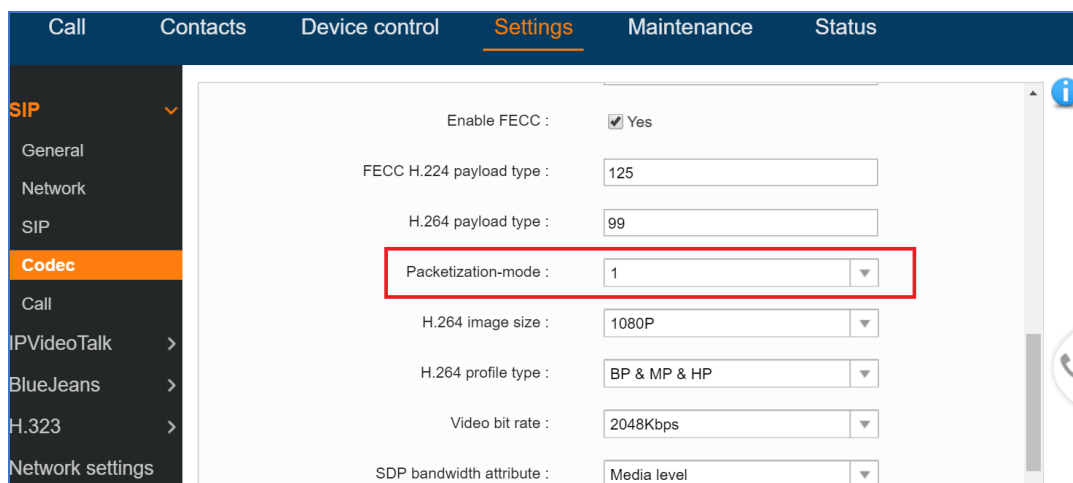


Users could select “Disable”, “DHCP Option 132 and DHCP Option 133”, or “Encapsulated in DHCP Option 43”.

- When set to “DHCP Option 132 and DHCP Option 133”, the GVC320x will get DHCP Option 132 as VLAN ID and get DHCP Option 133 as VLAN priority, from the DHCP server directly.
- When set to “Encapsulated in DHCP Option 43”, the GVC320x will get VLAN ID and VLAN priority value from the DHCP Option 43 which has DHCP Option 132 and DHCP Option 133 encapsulated. In this case, please make sure the option “Allow DHCP Option 43 and Option 66 to Override Server” is enabled under GVC320x webUI->Maintenance->Upgrade.
- The default setting is “Encapsulated in DHCP Option 43”.

## VIDEO PACKETIZATION MODE

In GVC320x web UI, users can configure video packetization mode for SIP account and BlueJeans account. The packetization mode can be configured to 0, 1 or Auto. When it's set to 0 or 1, the INVITE will include packetization mode value as 0 or 1. If it's set to Auto, the INVITE will include both 0 and 1, and the packetization mode value is a result of negotiation between the endpoint and the server. Default setting is 1.



The P value for this setting is as below:

# Packetization-mode for SIP account. 0 - 0, 1 - 1, 2 - Auto. Default is 1

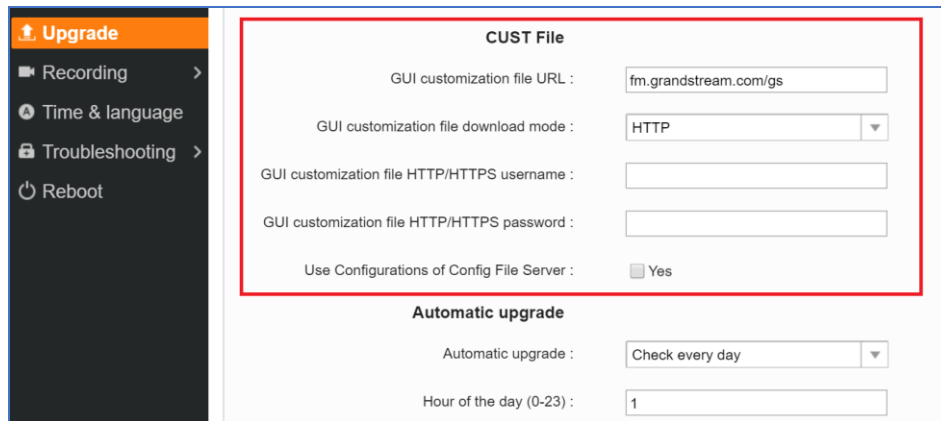
P26005 = 1

# Packetization-mode for BlueJeans account. 0 - 0, 1 - 1, 2 - Auto. Default is 1

P26205 = 1

## CUST FILE SETTINGS

The GVC320x supports GUI customization using the Grandstream GUI customization tool for users to customize GUI desktop layout and display. The GUI customization tool will generate a cust file for the GVC320x to download. The GUI customization setting is located in GVC320x web UI->Maintenance->Upgrade: CUST File.



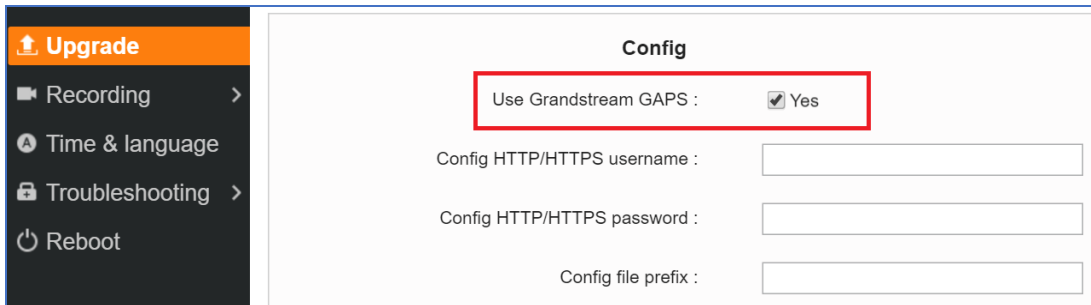
- **GUI customization file URL**  
This setting defines the server path for the GUI customization file where the GVC320x will download it from. The P value is P6774. Default value is fm.grandstream.com/gs.
- **GUI customization file download mode**  
Select the GUI customization file download mode: "HTTP", "HTTPS" or "TFTP".  
The P value is P6775. 0 – TFTP, 1 – HTTP, 2 – HTTPS. Default value is 1.
- **GUI customization file HTTP/HTTPS username**  
Enter the username to access the HTTP/HTTPS server to download cust file, if required by the server.  
The P value is P6776.
- **GUI customization file HTTP/HTTPS password**  
Enter the password to access the HTTP/HTTPS server to download cust file, if required by the server.  
The P value is P6777.
- **Use Configurations of Config File Server**  
If selected, the GVC320x will download the cust file in the same way as retrieving configuration file, i.e., same server and downloading mode, etc.  
The P value is P6778. 0 – No, 1 – Yes. Default value is 0.

For more information about using GUI customization tool, please refer to the following document:

[http://www.grandstream.com/tools/gvc320x\\_gui\\_customization\\_guide.pdf](http://www.grandstream.com/tools/gvc320x_gui_customization_guide.pdf)

### USE GRANDSTREAM GAPS FOR CONFIG FILE DOWNLOADING

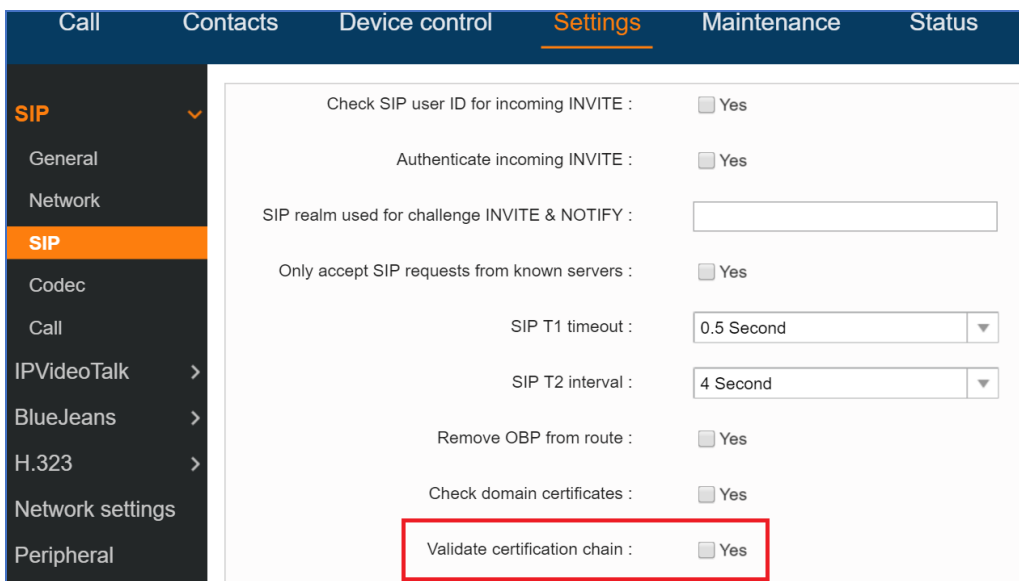
A new option “Use Grandstream GAPS” is added under GVC320x web UI->Maintenance->Upgrade: Config section. It's used to configure the download path and update mode for the configuration file server. If set to “Yes”, the GVC320x will set the download path of the configuration file to fm.grandstream.com/gs by default, and use HTTPS protocol to connect to the server. If set to “No”, users can manually configure the path and update mode to retrieve the configuration file.



Config	
Use Grandstream GAPS :	<input checked="" type="checkbox"/> Yes
Config HTTP/HTTPS username :	<input type="text"/>
Config HTTP/HTTPS password :	<input type="text"/>
Config file prefix :	<input type="text"/>

### VALIDATE CERTIFICATION CHAIN

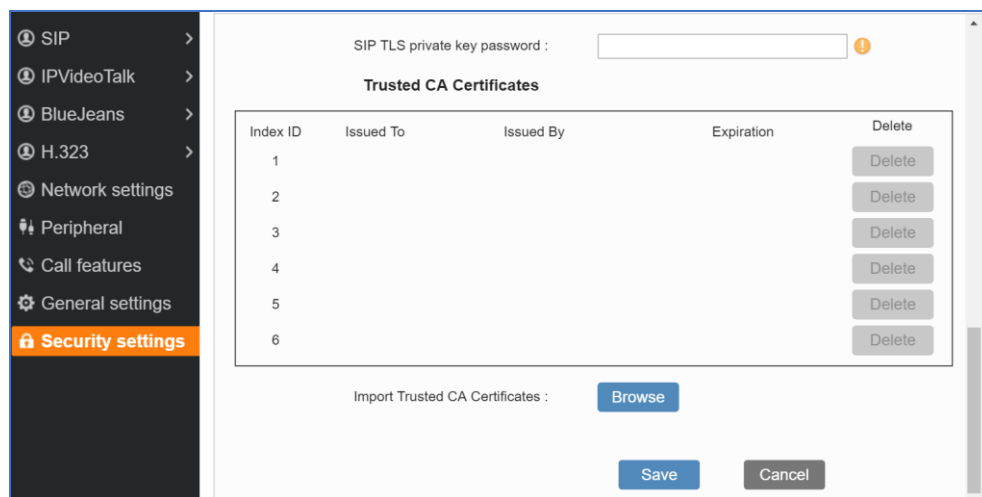
In web UI->Settings->SIP, a new option “Validate certification chain” is added. When the SIP transport protocol is “TLS” and this option is enabled, the certificates in device system and the trusted CA certificates uploaded by the user (see section [TRUSTED CA CERTIFICATES]) will be validated.



Call	Contacts	Device control	Settings	Maintenance	Status
<div> <div> <b>SIP</b>            General            Network  <b>SIP</b>            Codec            Call            IPVideoTalk            BlueJeans            H.323            Network settings            Peripheral         </div> <div>           Check SIP user ID for incoming INVITE : <input type="checkbox"/> Yes            Authenticate incoming INVITE : <input type="checkbox"/> Yes            SIP realm used for challenge INVITE &amp; NOTIFY : <input type="text"/>            Only accept SIP requests from known servers : <input type="checkbox"/> Yes            SIP T1 timeout : 0.5 Second            SIP T2 interval : 4 Second            Remove OBP from route : <input type="checkbox"/> Yes            Check domain certificates : <input type="checkbox"/> Yes  <b>Validate certification chain : <input type="checkbox"/> Yes</b> </div> </div>					

## TRUSTED CA CERTIFICATES

In web UI->Settings->Security settings, users could upload up to 6 trusted CA certificates to be used for application as well as SIP calls when TLS is used.



SIP TLS private key password :

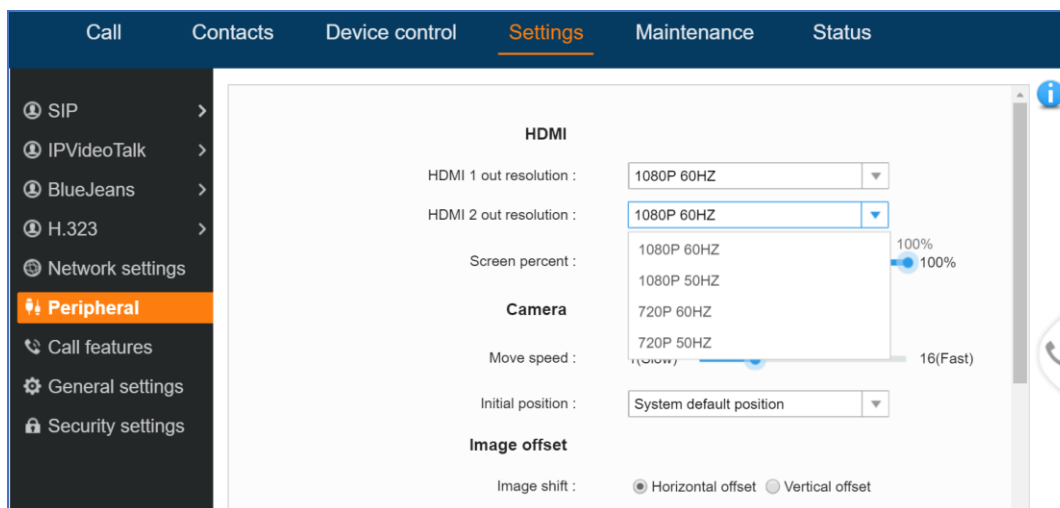
**Trusted CA Certificates**

Index ID	Issued To	Issued By	Expiration	Delete
1				Delete
2				Delete
3				Delete
4				Delete
5				Delete
6				Delete

Import Trusted CA Certificates :

## HDMI 2 OUT RESOLUTION

In web UI->Settings->Peripheral, a new option “HDMI 2 out resolution” is added so that users can configure resolution and frequency for the HDMI 2 output display besides HDMI 1.



**Call** **Contacts** **Device control** **Settings** **Maintenance** **Status**

**Peripheral**

**HDMI**

HDMI 1 out resolution : 1080P 60HZ

HDMI 2 out resolution : 1080P 60HZ

Screen percent : 100% 100%

**Camera**

Move speed : 16(Fast)

Initial position : System default position

**Image offset**

Image shift : ☒ Horizontal offset ☐ Vertical offset

The P value for this option is P25105. 10 – 1080P 60HZ, 9 – 1080P 50HZ, 6 – 720P 60HZ, 5 – 720P 50HZ. Default value is 10.

## FIRMWARE VERSION 1.0.1.74

### PRODUCT NAME

GVC3200, GVC3202

### DATE

05/31/2016

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.1.74 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/GVC320x\\_1.0.1.74\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/GVC320x_1.0.1.74_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.1.74 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/GVC3200\\_1.0.1.74\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/GVC3200_1.0.1.74_for_GVC_1_0_1_12_to_1_0_1_41.zip)  
After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.  
**WARNING: Please DO NOT upgrade GVC3200 using 1.0.1.74 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**
- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.1.74 firmware package that contains necessary transition firmware files and 1.0.1.74 firmware file.  
[http://firmware.grandstream.com/GVC3200\\_1.0.1.74\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/GVC3200_1.0.1.74_for_GVC_below_1_0_1_12.zip)  
After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.  
**WARNING: When you upgrade GVC3200 to 1.0.1.74 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**

- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.1.74 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.1.65

### ENHANCEMENT

- Added support to join an IPVideoTalk meeting by dialing meeting ID or host IPVideoTalk ID.[JOIN IPVIDEOTALK MEETING METHODS]
- Added prompt message for current IPVideoTalk plan is about to expire or already expired on GVC320x LCD home screen or menu->Applications->IPVideoTalk application->Notices.[PLAN EXPIRATION NOTICE]
- Updated size limitation of each recording file size from 1 G to 1.9 G, GVC320x will create a new file if it exceeds 1.9G to continue recording.
- Updated Grandstream GAPS system to provision default configuration on local GVC320x device.
- Added support specific failed reasons prompt on dialing screen instead of SIP 486 busy error messages of IPVideoTalk calls [SPECIFIC BUSY RESPONSE]
- Added A tip for manually starting local scheduled IPVideoTalk meeting from GVC320x LCD -> Schedule page [MANUALLY START IPVIDEOTALK TIP]
- Added redial button to join IPVideoTalk meeting after TCP abnormal disconnection with IPVideoTalk server.
- Optimized audio delay issue during conference calls when using Bluetooth-connected GAC2500 as external speaker
- Optimized video delay issue by reducing forwarding time of end system to decoders once it receives RTP mark symbol

### BUG FIX

- Fixed DUT fails to add new GVC320x participants to join IPVideoTalk meeting from WebUI after it redials the GVC320x that has rejected its initial call before
- Fixed Default account display incorrectly after IPVideoTalk account is deactivated on IPVideoTalk Application
- Fixed GVC320x LCD->Schedule interface cannot display full detailed information when scheduling multiple meetings (more than 7) on DUT
- Fixed Connected GAC devices cannot make a phone call on its own interface when GVC320x is in standby mode

- Fixed GVC3200 will receive busy response when dialing conference participants to join the current long-time multi-party conference
- Fixed Call number with \* could be abnormally dialed out even though call feature is disabled and dial plan is configured to digits only
- Fixed Return key pressed on Setup Wizard -> Advanced network configuration screen will incorrectly redirect to main Application interface
- Fixed Corresponding Chinese language strings are missing or incorrect for some new features
- Fixed GVC320x cannot send INVITE message to participants after multiple automatic dialing
- Fixed Echoes appear when input DTMF on Bluetooth connected GAC interface during GVC320x calls
- Fixed Unexpected core files will be generated during auto-root mode
- Fixed Actual frame rate is inconsistent with configured frame rate when a batch call is dialed out
- Fixed Prompt error message is inaccurate when exporting local Contacts to external storage while external SD or USB ejects halfway
- Fixed Codec “Opus” cannot be supported on H.323 account currently and need to be removed from GVC320x LCD-> Account -> H.323 -> Codec
- Fixed IPVideoTalk application on some GVC320x devices keep receiving “Require updating” and “Updating successfully” notices even after they upgrade to new version
- Fixed Check more than 200 unread notice message on IPVideoTalk application causes Notice interface freezing and ANR displaying
- Fixed Rename recording files as an emoticon causes Recording application interface on GVC320x LCD stuck and freezing
- Fixed GVC320x forwards the call with no answer to another device to establish the conference, conference videos will display abnormal
- Fixed Contacts on local GVC320x cannot be exported to secondary directory of internal or external storage
- Fixed Cursor cannot be moved after selecting input language in external soft keyboard(AOSP)
- Fixed Low version cannot be upgraded to firmware 1.0.1.65
- Fixed GVC320x cannot upgrade to firmware 1.0.1.65 by downloading firmware files from server path if validate server certificate is enabled.
- Fixed Presentation and audio streams are abnormal when GVC320x device establishes a three-way conference with two parties who are already in another two-way conference
- Fixed On incoming call interface, a caller that has no prefix country code doesn't automatically match with a local contact that configured its phone number with a country code prefix
- Fixed H.323: Default option displayed on incoming call interface should be “Pick up” for video answer rather than “Audio Answer”
- Fixed H.323 account status remains unregistered when site number and GK authentication username is not configured
- Fixed H.323: IP calls cannot be established normally when local port is set to non-default value 1720
- Fixed H.323: The description for an H323 incoming options on web UI is inconsistent with local LCD dialing interface
- Fixed H.323: An audio call will be established when H.460 account make an outgoing video call



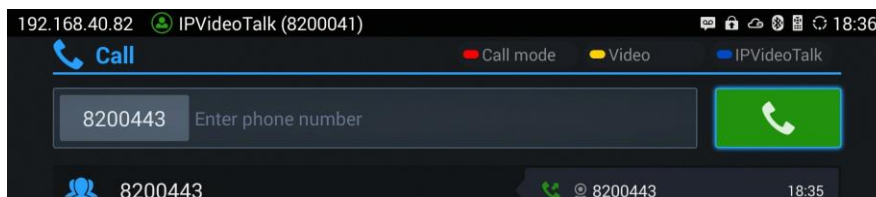
- Fixed H.323: Turn on video during an audio call is not working
- Fixed IPVideoTalk: Participant GVC320x can unexpectedly invite and call other IPVideoTalk accounts to join the meeting
- Fixed WebRTC clients to view normally presentation screen rather than an encrypt black picture by resetting SSRC and SEQ values to a random value after reopening presentation shared by GVC320x during IPVideoTalk meeting
- Fixed IPVideoTalk: PSTN account information displays incomplete and unfriendly to read
- Fixed IPVideoTalk: GVC320x send an unexpected BYE message to cloud server after it is kicked out from conference room by a WebRTC host
- Fixed IPVideoTalk: WebRTC interface always stuck on “Video Loading” when GVC320x initiating IPVideoTalk meeting by pressing CALL button
- Fixed IPVideoTalk: Authentication request notice status is still unread after GVC320x has accepted another enterprise link request and refused to that request
- Fixed IPVideoTalk: Unexpected strings shown following “10000” on title of non-authentication notices
- Fixed IPVideoTalk: Account status still displays gray color even though it has already registered successfully after de-active and active operations
- Fixed IPVideoTalk crashes error when attempting to view unread message on IPVideoTalk application -> Notices
- Fixed OLED freezing problems when waking up from long-time sleep mode
- Fixed DUT fails to be completely shut down when it has a WIFI connection
- Fixed Audio and video stream are out of sync on recording files if presentation mode is turned on/off during recording

## NEW FEATURE OVERVIEW

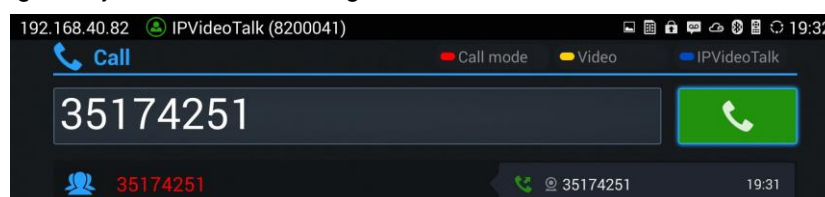
### JOIN IPVIDEOTALK MEETING METHODS

Added support to join IPVideoTalk meeting by dialing host GVC320x's IPVideoTalk ID or meeting ID. Please note only after meeting starts, GVC320x can use this method to join the conference as a participant.

- Dialing host GVC320x's IPVideoTalk ID to join an active meeting

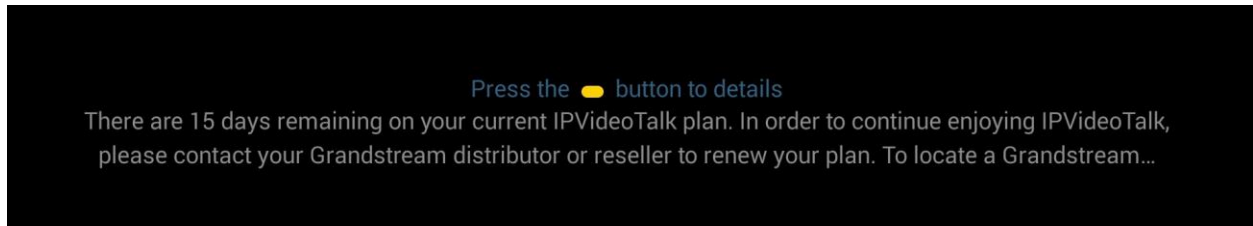


- Dialing meeting ID to join an active meeting.

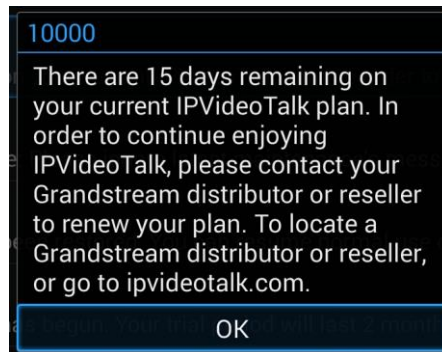


## PLAN EXPIRATION NOTICE

Added prompt message for current IPVideoTalk plan is about to expire or already expired on the bottom of GVC320x LCD home screen. Press yellow short key to view message details.



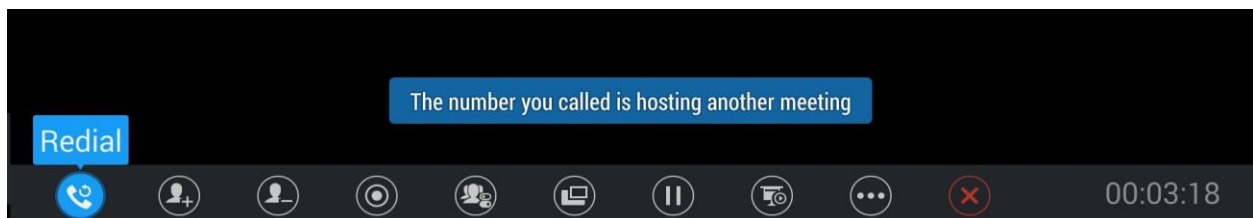
Also, detailed information is on GVC320X LCD menu->Applications->IPVideoTalk application->Notices.



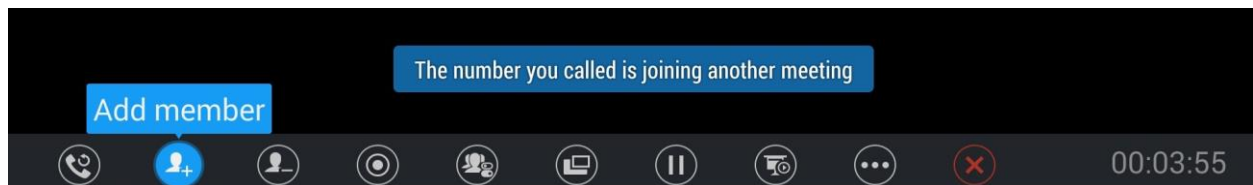
## SPECIFIC BUSY RESPONSE

Added specific busy response messages rather than SIP 486 busy error prompt on IPVideoTalk dialing interface. Please note GVC320x can only join one IPVideoTalk meeting at one time.

- “The number you dialed is hosting another meeting”. Host GVC320X cannot be added as a participant of another IPVideoTalk meeting.

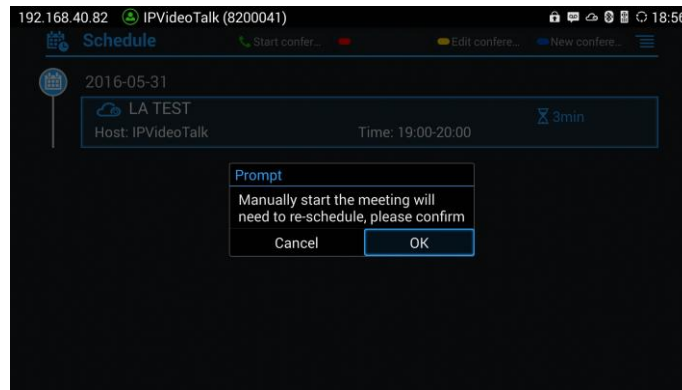


- “The number you dialed is joining another meeting”. Participant GVC320X of an active IPVideoTalk meeting cannot be added to another meeting.



### MANUALLY START IPVIDEOTALK TIP

Schedule a meeting from IPVieoTalk Web Portal, then the meeting will sync to host GVC320x device LCD -> Schedule interface. There will be a prompt message “Manually start the meeting will need to re-schedule, please confirm” when pressing CALL button on remote control to start the meeting manually before or after scheduled time.



## FIRMWARE VERSION 1.0.1.65

### PRODUCT NAME

GVC3200, GVC3202

### DATE

04/01/2016

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.


- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.1.65 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/GVC320x\\_1.0.1.65\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/GVC320x_1.0.1.65_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.1.65 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/GVC3200\\_1.0.1.65\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/GVC3200_1.0.1.65_for_GVC_1_0_1_12_to_1_0_1_41.zip)  
After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.  
**WARNING: Please DO NOT upgrade GVC3200 using 1.0.1.65 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**
- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.1.65 firmware package that contains necessary transition firmware files and 1.0.1.65 firmware file.  
[http://firmware.grandstream.com/GVC3200\\_1.0.1.65\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/GVC3200_1.0.1.65_for_GVC_below_1_0_1_12.zip)  
After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.  
**WARNING: When you upgrade GVC3200 to 1.0.1.65 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200**

**web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**

- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.1.65 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.1.58

### ENHANCEMENT

- Added video answer and audio answer options in LCD and web UI to answer H.323 video call.
- Added screen lock password options under web UI to set, edit and delete screen lock password. The option is in web UI->Settings->Security Settings.
- Improved prompt message content to be more specific when IPVideoTalk account on GVC320x receives 404, 403, 408, 486, 488, 5xx and 6xx error code.
- Added host code information during IPVideoTalk meeting on GVC320x. This host code can be found on GVC320x LCD call screen->Bottom menu->More->Meeting info.
- Added support to lock SD card, USB and WiFi functions by P value provisioning. New P values:  
P22035: 0 –SD card function is locked, 1 –SD card function can be used  
P22036: 0 –USB function is locked, 1 –USB function can be used  
P22038: 0 –WiFi function is locked, 1 –WiFi function can be used  
Once provisioned, the users need reboot the device to take effect.
  - If SD card is locked, SD card will not be detected when it's plugged in.
  - If USB is locked, USB device will not be detected when it's plugged in.
  - If WiFi is locked, WiFi icon will not display on the screen top status bar and WiFi will not work.By default, SD card, USB and WiFi functions are not locked and they can be used as normal.
- Added option “Account active” to de-activate BlueJeans account. This option is under GVC3200/GVC3202 web UI->Settings->BlueJeans->General.
- Added options “H.264 payload type”, “H.264 image size”, “Video bit rate” and “Video frame rate” for H.323 account. These options are under GVC3200/GVC3202 web UI->Settings->H.323->Codec.
- Added icon to indicate network unstable condition on the upper left of the call screen. This icon  will show up during the call screen when the current network condition is not good enough for the video call using the selected resolution/bit rate.
- Added version control so that IPVideoTalk account will work only after upgrading to 1.0.1.61.
- Added ability to choose any configured preset as initial preset in the drop-down menu in addition to “Default” and “Latest Position”. This option “Initial position” can be configured under LCD menu->Settings->Peripheral->Camera, or from web UI->Settings->Peripheral->Camera.

- Added 3-way 720P conference support for IPVideoTalk account on GVC3202.
- Added prompt about preparing to download firmware for update when selecting upgrade in the notice message about firmware version too low in GVC320x LCD menu->Applications->IPVideoTalk application->Notices.
- Added prompt to remind the user that GVC320x will reboot after changing "Trial server address" configuration in GVC320x LCD menu->Applications->IPVideoTalk application->Settings.
- Added IPVideoTalk version information in GVC320x LCD menu->Applications->IPVideoTalk application->Settings.
- Improved upgrading and notification in LCD about GVC320x firmware version too low for IPVideoTalk service.
- Added H.460.18/19 support for H.323 so that H.323 account on GVC320x can make IP calling through public Internet. To use it, set "Use NAT IP" to the public IP of the GVC320x's network under GVC320x web UI->Settings->General Settings. The H.323 static port ranges are:  
TCP (local H.323 signal port): port 1720  
UDP (H.225-RAS): port 4000 - 4100  
TCP (H.225-CS H.245): port 4200 - 4300  
UDP (RTP/RTCP): port 6004 - 6080

#### BUG FIX

- Fixed Avaya web collaboration application running on GXV320x cannot send or receive video during conference
- Fixed DUT crashes during long time performance testing when connected to GAC2500 via Bluetooth and using Bluetooth account to establish call
- Fixed DUT doesn't revert to default dial plan when entering wrong dial plan in web UI configuration
- Fixed Web UI has English characters displayed when Chinese is the display language
- Fixed Configuring static IP to 0.0.0.0 should prompt error message
- Fixed Using feature code \*16 to enable SRTP function will cause the call become abnormal after holding the call
- Fixed Presentation displays incorrectly after audio participants start video
- Fixed Skype skype cannot be shown after deleting conference members and only mixing the call with one SIP party
- Fixed Uninstalling app from the installed list will return to app interface
- Fixed Call feature code will be filtered when the filter character has \* included
- Fixed Adding contact from call history doesn't automatically fill in display name of SIP message
- Fixed Dialing IP and port in normal call mode will cause port number not being recognized if DUT has quick IP call enabled
- Fixed LDAP: There is no tip when the return value is set to a smaller number than server's actual records
- Fixed LDAP search result is empty if the number attribute value is empty
- Fixed LDAP: Outgoing query name is not displayed when the number filter is set to \*

- Fixed Improved packet loss issue when meeting participant opens presentation in multi-party video conference
- Fixed Cannot successfully BFCP when callee sets STUN
- Fixed Presentation doesn't work in long time multi-party 1080P video performance testing using SRTP
- Fixed H.323: Initiating presentation in two-way video conference and then adding another member will cause the presentation freezing
- Fixed H.323: Mute/Block will not work after turning on presentation
- Fixed H.323: Fixed B cannot hold the call anymore if A and B all hold the call and B resumes the call
- Fixed H.323: DUT cannot play custom ringtones when the caller is RPD
- Fixed H.323: DUT always prefers PCMU/PCMA over G.722 and G.722.1
- Fixed DUT stops sending presentation RTP after starting and stopping presentation multiple times
- Fixed some string translation issues for IPVideoTalk app
- Fixed Web UI should display prompt for users to select default account when the user deactivate the current default account
- Fixed DUT LCD will flash black when start scheduled meeting immediately
- Fixed IPVideoTalk app->Notices shows in message while there is no new message
- Fixed IPVideoTalk app triggers post login and url twice after reboot
- Fixed IPVideoTalk notice is not refreshed when there is one full page of messages and a new message coming
- Fixed There is no tip prompted when entering the IPVideoTalk app the first time after unlinking the business
- Fixed IPVideTalk account will become deactive when changing trial service address during talking status
- Fixed Using NAT IP option in web UI doesn't work for H.323 account
- Fixed DUT HDMI 2 layout changes from PIP to average after turning on presentation PC mode
- Fixed DUT cannot enter call interface after long time performance testing

## FIRMWARE VERSION 1.0.1.58

### PRODUCT NAME

GVC3200, GVC3202

### DATE

02/08/2016

### IMPORTANT UPGRADING NOTE

Please read below instructions before upgrading. Different firmware packages and upgrading methods will be required depending on the current firmware version of the GVC3200.

- **If your GVC3200 is on 1.0.1.42 or higher versions, or if you are upgrading GVC3202:**  
Please download the following 1.0.1.58 firmware package and upgrade via HTTP, TFTP or web UI uploading.  
[http://firmware.grandstream.com/GVC320x\\_1.0.1.58\\_for\\_GVC\\_on\\_1\\_0\\_1\\_42\\_or\\_higher.zip](http://firmware.grandstream.com/GVC320x_1.0.1.58_for_GVC_on_1_0_1_42_or_higher.zip)
- **If your GVC3200 is on 1.0.1.12 or higher versions, but below 1.0.1.42:**  
Please download the following 1.0.1.58 firmware package that contains all necessary firmware files.  
[http://firmware.grandstream.com/GVC3200\\_1.0.1.58\\_for\\_GVC\\_1\\_0\\_1\\_12\\_to\\_1\\_0\\_1\\_41.zip](http://firmware.grandstream.com/GVC3200_1.0.1.58_for_GVC_1_0_1_12_to_1_0_1_41.zip)  
After downloading the above package, please unzip it and put all 3 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5” and “gvc3200afw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.  
**WARNING: Please DO NOT upgrade GVC3200 using 1.0.1.58 firmware file “gvc3200afw.bin” directly via web UI uploading. Your GVC3200 might not get all necessary firmware files if upgraded via web UI uploading.**
- **If your GVC3200 is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12):**  
Please download the following 1.0.1.58 firmware package that contains necessary transition firmware files and 1.0.1.58 firmware file.  
[http://firmware.grandstream.com/GVC3200\\_1.0.1.58\\_for\\_GVC\\_below\\_1\\_0\\_1\\_12.zip](http://firmware.grandstream.com/GVC3200_1.0.1.58_for_GVC_below_1_0_1_12.zip)  
After downloading the above package, please unzip it and put all 4 files “gvc3200\_rescue.bin”, “gvc3200\_rescue.bin.FHDR.md5”, “gvc3200afw.bin” and “gvc3200fw.bin” in your local HTTP or TFTP server, then configure the firmware path on your GVC3200 to upgrade via HTTP or TFTP.  
**WARNING: When you upgrade GVC3200 to 1.0.1.58 from firmware versions lower than 1.0.1.12, please use HTTP or TFTP upgrading only. DO NOT upload firmware file directly from GVC3200 web UI->Maintenance->Upload. This could cause upgrading failure and potentially damage the device.**



- The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading.
- Once upgrading to firmware 1.0.1.58 or higher versions, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**

## CHANGES SINCE FIRMWARE VERSION 1.0.1.49

### ENHANCEMENT

- Added H.323 support. H.323 configuration is under GVC320X web UI->Settings->H.323.
- Added support for viewing top status bar notification in drop-down panel by long-pressing the MENU key on the GVC320X remote control or pressing DOWN button when in home screen.
- Added support for Skype video mixing so that the remote SIP party can receive video feed from Skype. Steps:
  1. GVC320x A establishes video call with another GVC320x B (or GXV32xx) using SIP account.
  2. On GVC320x A, during the SIP call, select More->Add third party and select Skype app.
  3. On GVC320x A, establish Skype call with PC Skype client. Now the call is mixed.
  4. If GVC320x A currently shows Skype app interface, press the GVC320x A's remote control's BACK button to exit this Skype app interface. This will enable Skype video mixing and a message "Skype video mixing is on" will pop up on the screen. The user can then navigate to the normal SIP call interface using the GVC320X remote control. On the remote party GVC320x B (or GXV32xx), the user will see mixed video of both Skype and GVC320x A.
  5. If going back to the Skype call interface again, it will automatically disables Skype video mixing. The remote party GVC320x B (or GXV32xx) will see the video from GVC320x A only, instead of the mixed video.
  6. Navigate as indicated in step 4 to enable Skype video mixing or step 5 to disable it.

#### **Note:**

- **The Skype app that support video mixing must be downloaded from GS Market directly.**
- **Currently this feature only works when there is only one SIP (or H.323) line in the call.**
- Added ability to show upgrading downloading status in top status bar.
- Added "Layout" option in the bottom menu when GVC320x is in the call so that users can adjust layout using this option, instead of pressing the PIP button on the GVC320X remote control.
- Added "Auto answer" option for account under LCD menu->Settings->Accounts->Call.
- Added "View contact" option in the GVC320x menu->Applications->Call History so that users can view contact details if the call history entry already exists in Contacts. In Call History main interface, navigate to a call history record->select the upper right Menu button on the screen, if this entry exists in Contacts, users can see and select "View contact" option in the drop-down list to view the details for this contact.

- Added support to automatically dial as direct IP call if the user enters direct IP call format on LCD call dialing interface. For example, if the user enters 192\*168\*40\*11#1234, the GVC320x will make direct IP call to IP address 192.168.40.11:1234.
- Added screen lock support. To use it,
  1. On GVC320x LCD menu->Settings->System->Security, select Screen Lock and set Screen Lock code.
  2. Reboot, enter sleep mode or power off the GVC320x.
  3. When the GVC320x boots up again, a screen lock code will be required. The user can unlock the screen by entering the code using the GVC320X remote control
- Added support to sync up local schedule with Googler Calendar. To use it:
  1. The users need install Google Calendar on GVC320x, sign in with Google account.
  2. Enable calendar sync under GVC320x LCD menu->Settings->System->Accounts->Google Account, select the added Google account and turn on calendar sync for it.
  3. Go to GVC320x LCD menu->Schedule->Click on the upper right MENU icon->Settings, enable Google Calendar by selecting the checkbox for the Google account, then set the sync interval, e.g., Every 5 mins.
  4. To schedule meeting using Google calendar and then sync up on GVC320x schedule, in Google Calendar, please enter "GVC" in "Where" option and enter meeting members in "Description" option. Multiple meeting members need to be separated by semi-colon in English input method.
  5. To schedule meeting on GVC320x and then sync up with Google Calendar, go to GVC320x LCD idle screen (or web UI->Contacts)->Schedule, select the Google account as the "Related Account" to schedule the conference.
  6. Once GVC320x has Google account associated with schedule, the scheduled conference from GVC320x or Google Calendar can sync up with each other.

#### BUG FIX

- Fixed Error message doesn't pop up when pressing CALL button to initiate IPVideoTalk meeting when the GVC3200/GVC3202 is on an old unsupported version
- Fixed Initiating IPVideoTalk meeting by pressing CALL button sometimes doesn't work
- Fixed Presentation timer is unexpectedly refreshed during presentation when switching to auto mode from PC mode
- Fixed Wrong error message "Delete failed" pops up when redialing via IPVideoTalk account after starting IPVideoTalk meeting is failed
- Fixed Failed to register IPVideoTalk account after upgrading GVC3200 from 1.0.1.18 to 1.0.1.44
- Fixed Page number appears in wrong place using camera or pressing PTZ icon to set preset
- Fixed Volume display on LCD screen is not in correct mode when GAC2500 is connected to GVC320x via USB connection
- Fixed MUTE status on GVC320x is not sync up to GAC2500 when GAC2500 is connected to GVC320x via USB connection
- Fixed Video displays abnormal when initiating a call starting with feature code \*74
- Fixed Model information of GVC3202 is incorrect when connected to GAC2500 via USB

- Fixed Presentation doesn't disappear from screen after conference is ended on GVC320x
- Fixed Adjusting "Frequency of A.C." by pressing the yellow shortcut key on GVC320X remote control doesn't work
- Fixed "Auto" is not selected when presentation interface continues to display after remote party ended video
- Fixed Dialing out using SIP URL will display 3-party video screen instead of 2 videos
- Fixed The tips for unplugging HDMI/VGA not translated in Chinese when Chinese is the system language
- Fixed GVC320x sends HTTP request to the previously configured proxy server instead of the modified proxy server after reboot
- Fixed When using G.722.1 or Opus, if two parties have different payload value configured, the payload values are not the same after negotiation during the call and it causes no audio issue
- Fixed 802.1x mode does not take effect immediately in web UI
- Fixed Device should be redirected to app main interface instead of staying in "Add Account" interface after successfully adding Google account
- Fixed Web UI->Call->layout page should show current layout instead of the initial default layout
- Fixed Device doesn't display the last selected layout after using FECC control
- Fixed OLED doesn't display after exit from OLED testing in Diagnosis app
- Fixed The ring tone rings twice for the first incoming call after configuring alert info
- Fixed There is no output sound from Fan Noise Collection MIC in Diagnosis app after the device is shut down and boots up again
- Fixed Web UI tooltip for option "Account Active" needs modification
- Fixed Web UI tooltip for option "Register Expiration (Min.)" should be modified
- Fixed Cannot redial via IPVideoTalk account from Call history
- Fixed GVC320x displays the host's HDMI IN video when the participant GVC320X turns presentation off
- Fixed Transfer fails when using the Bluetooth account connected to GAC2500
- Fixed Device will not ring if there is an incoming call during deleting contact operation
- Fixed Device has no ring tone in HDMI output if not selecting phone audio for the connected Bluetooth headset
- Fixed Video display is wrong when calling 7 IPVideoTalk account at the same time
- Fixed Messages are displayed in wrong order in IPVideoTalk app->Notice interface
- Fixed Cannot sync up contacts with GAC2500 after upgrading GVC3200 and reconnecting to GAC2500 via Bluetooth
- Fixed Speaker icon is display incorrectly after plugging in or unplugging speaker from GVC320x via USB
- Fixed OLED has no display when rebooting without Ethernet cable or Wi-Fi connected
- Fixed No video is sent when using App "Appear.in" on GVC320x.
- Fixed Presentation disappears when the remote party turns on presentation using PC mode
- Fixed Cannot start meeting when GVC320x's display name contains character "

- Fixed The layout is displayed incorrectly when adding another call using IPVideoTalk account during video call using SIP account
- Fixed Manually setting time zone and language doesn't not take effect
- Fixed VidyoMobile App cannot log in on GVC320x successfully
- Fixed Dial plan doesn't take effect for redialing
- Fixed There is no tip when turning on presentation while switching audio call to video call
- Fixed The cursor will jump to apps button when clicking on STOP button for a running app under LCD menu->Settings->System->Application
- Fixed Repeatedly pressing HOME and OK buttons in custom applications interface will cause HOME button invalid in certain apps
- Fixed Remote control navigation arrows keys not working in FileManager app after searching and entering an empty folder in the searching result
- Fixed The time of the newly created folder is shown as 1970 after reboot
- Fixed Cannot start IPVideoTalk meeting by pressing CALL button when GVC320x has a system time earlier than current time
- Fixed The account name is not displayed as provisioned in GVC320x web UI after configuring it in IPVideoTalk admin portal

## FIRMWARE VERSION 1.0.1.49

### PRODUCT NAME

GVC3200, GVC3202

### DATE

12/31/2015

### IMPORTANT UPGRADING NOTE

1. Once upgraded to firmware 1.0.1.49, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**
2. You can only upgrade to 1.0.1.49 from 1.0.1.12 or later versions. If your device is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12), please use the following firmware server path via HTTP to upgrade your GVC3200 to 1.0.1.12 first:  
**[firmware.grandstream.com/gvc3200\\_1\\_0\\_1\\_12](http://firmware.grandstream.com/gvc3200_1_0_1_12)**
3. The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading via HTTP.
4. Firmware package for 1.0.1.49 is not provided for users to download to PC at this time. Please contact us should you have any issues upgrading GVC3200/GVC3202 via HTTP.

### CHANGES SINCE FIRMWARE VERSION 1.0.1.48

#### BUG FIX

- Fixed SDP in the INVITE is incorrect after modifying the IPVideoTalk account package when the IPVideoTalk account is not the default account
- Fixed Cannot start IPVideoTalk meeting immediately after upgrading
- Fixed Call failed because ACK has conf info "-1" but DUT still starts meeting when it receives 200OK (conf-info) from web service later

## FIRMWARE VERSION 1.0.1.48

### PRODUCT NAME

GVC3200, GVC3202

### DATE

12/15/2015

### IMPORTANT UPGRADING NOTE

1. Once upgraded to firmware 1.0.1.48, **downgrading to 1.0.1.18 or earlier versions is NOT allowed.**
2. You can only upgrade to 1.0.1.48 from 1.0.1.12 or later versions. If your device is on firmware version 1.0.1.5 (or any other versions below 1.0.1.12), please use the following firmware server path via HTTP to upgrade your GVC3200 to 1.0.1.12 first:  
**[firmware.grandstream.com/gvc3200\\_1\\_0\\_1\\_12](http://firmware.grandstream.com/gvc3200_1_0_1_12)**
3. The firmware upgrading process could take several minutes. Please be patient when the GVC3200/GVC3202 starts downloading firmware files and upgrading via HTTP.
4. Firmware package for 1.0.1.48 is not provided for users to download to PC at this time. Please contact us should you have any issues upgrading GVC3200/GVC3202 via HTTP.

### CHANGES SINCE FIRMWARE VERSION 1.0.1.5

#### ENHANCEMENT

- Added option “Use First Matching Vocoder in 200OK SDP” in web UI. New P value is P2348 for SIP account and P2548 for BlueJeans account
- Added support for GAC2500
- Added PTZ control support during third party all call such as Skype and Hangouts
- Added ability to switch to PTZ control mode directly during presentation
- Added ability to power off the device from web UI
- Added LDAP contacts support
- Added dial plan special character filter
- Added option to configure SIP user agent for all SIP messages
- Added ability to rename preset in LCD so the preset can be labelled with name instead of number only

#### BUG FIX

- Fixed Avaya Web Collaboration cannot display top tab menu on GVC3200 display device
- Fixed Cisco WebEx android app crashes on the GVC3200 when enabling audio

- Fixed Direct IP call cannot be dialed from call history
- Fixed Device behaves abnormal if power cycled during call and then making a new call after bootup
- Fixed Using Bluetooth account to make a call when the device is in sleep mode and then waking up the device will cause the conversation has no audio
- Fixed Sometimes camera preset cannot be saved
- Fixed The background of the bottom menu is different after selecting layout mode
- Fixed Call history in LCD menu is not sync up with web UI after deleting an entry from web UI
- Fixed No video displayed for BlueJeans call because "Enable Video FEC" is set to Yes by default
- Fixed GVC3200 goes to sleep mode during Skype call
- Fixed Some translations in Russian needs to be corrected
- Fixed Facebook Messenger cannot play/share the video received
- Fixed Video doesn't work properly after long time 5-way conference with presentation turning on and off
- Fixed Sometimes scanning backup file will appear no file, showing files too slow or quit app interface after sliding down if too many files exist in SD card
- Fixed Google Japanese Input app configuration menu isn't displayed correctly
- Fixed OLED shows Lens Failed while lens can work normally
- Fixed Skype incoming call can wake up GVC3200 from sleep mode without changing the OLED status
- Fixed LCD settings still exist preset name without snapshot after renaming and deleting the preset in web UI
- Fixed The renamed preset still shows the same name after deleting and creating new preset
- Fixed Only one call history entries are generated after blind transfer
- Fixed Some ringtones only ring once
- Fixed If pressing HOME button while playing a recording file, the recording file is displayed in black when entering the file again
- Fixed Cannot select expressions using remote control
- Fixed The preset position should not be set to 0
- Changed behavior for option "Switch to mainstream" and "Switch to substream"
- Modified SPI clock to fix Pan-Tilt issue
- Fixed HDMI2/HDMI3 display no signal and HDMI1 displays black if sleep/power off and then wake up
- Fixed Call record is abnormal after answering and ending a second call during active call
- Fixed Device generates certain sharp sound after entering sleep mode
- Fixed prompted messages in web UI are not consistent in style and format
- Fixed Conference members should not be checked in Add Member list in web UI
- Fixed INFOCUS speaker doesn't play music smoothly
- Fixed Unable to restore the default layout when establishing a new conference
- Fixed The picture displayed on TV is in green
- Fixed The options in web UI is inconsistent with local UI after clicking on HOLD
- Fixed HDMI/VGA input display is incomplete in Diagnosis mode
- Fixed PIP position changes after unplugging and plugging in HDMI
- Fixed Deleting missed calls failed after removing call records in call history

- Fixed Cancel option in LCD is invalid in LLDP setting
- Fixed Changing HDMI out resolution in web UI causes device display abnormal in local peripheral settings
- Fixed Apps interface can enter number
- Fixed Restoring network tip still shows up after cancelling remote control upgrade process
- Fixed Presentation icon is turned in in web UI active call window after the call is put on hold
- Fixed Device LCD display switches from layout to home screen when clicking Back once during call
- Fixed Contacts app exits to home screen after downloading contacts
- Fixed Layout displays incorrect when callee turns on presentation
- Fixed Layout displays incorrect when selecting PIP to operate
- Fixed The text position of layout is incorrect when turning on/off presentations and video
- Fixed Duplicate members can be added into conference when creating new schedule from call history
- Fixed Schedule details displays abnormal on LCD
- Fixed Can't select BlueJeans call log to make a new call when call log has BlueJeans and SIP calls
- Fixed Schedule issues in web UI
- Fixed Number type selection displays issue when adding a contact from call history
- Fixed End button is not in the correct place after establishing scheduled conference
- Fixed The name of the selections for "Bold" option in site name web page is not consistent with other options
- Fixed Presentation icon disappears after turning on presentation
- Fixed No warning in group dialing via web UI by selecting some call history entries which do not match dial plan
- Fixed Can not scan third-party applications in backup
- Fixed The selected backup items number is incorrect
- Fixed DTMF tone keeps playing after selecting DTMF option and pressing number at the same time
- Fixed Call interface has no presentation icon after participant rejects the call
- Fixed No tip displays when dialing star feature code from web UI
- Fixed Can not dial out when dial plan contains pattern such as {<9=6046>}
- Fixed Double clicking menu button will pop up two prompt boxes in schedule interface
- Fixed User can add IP address as a member in conference schedule from call history
- Fixed User can dial the same number from web UI during active call
- Fixed New Group option is not displayed when adding contacts
- Fixed Contact number with space cannot be dialed out correctly
- Fixed Can not turn on presentation, can not switch to call interface or other error after turning on/turning off presentation frequently
- Fixed Web UI should not show details when there is no search for a contact
- Fixed Can not turn on presentation under TURN mode
- Fixed Video bit rate option for presentation is different between local LCD and web UI
- Fixed Call interface disappears after callee answers the call
- Fixed User can dial out from Voicemail app even though the VoiceMail ID does not match dial plan
- Fixed Presentation time is not displayed on the presentation receiver



- Fixed Call Forward icon still displays after turning off call forward using star feature code
- Fixed Cursor jumps error in contact search interface
- Fixed Screenshot doesn't work randomly
- Fixed Presentation option doesn't show after repeating establish BlueJeans call->add SIP call to BlueJeans call->Hang up
- Fixed Backup files are not displayed when backup using certain USB disk
- Fixed Confid and floorid carry and negotiation error
- Fixed Clicking Cancel will save configuration in Ethernet settings
- Fixed Exporting contacts locally has no file exported and no warning when exporting contacts from web UI
- Fixed Device can restore GXV32xx backup file
- Fixed Wrong value set to Phonebook download interval via config file can take effect
- Fixed Setting interface cursor moves abnormal after switching language to فارسی
- Fixed Some call forward mode does not take effect
- Fixed Call interface is abnormal when using the remote control apk to open "MORE" option during call
- Fixed Cannot search contact using the first character of first name and last name in web UI
- Fixed HTTP/HTTPS proxy server is not used in upgrading
- Fixed Calling interface is incorrect after setting call forward to a non-existent number
- Fixed Call status information disappears after adding call gets rejected in an active call and another incoming call joins
- Fixed Can not block or suspend from web UI
- Fixed IPVideoTalk Pro prompt to enable IPVideoTalk Pro service needs modification
- Fixed Web UI and local LCD show inconsistent behavior when dialing star feature code from call history
- Fixed Device can not obtain network connection after plugging and unplugging different SD cards
- Fixed The record interface displays wrong image after playing recording file and pressing HOME button
- Fixed Web UI always shows Apply prompt when dial prefix is \
- Fixed Frequently switching HDMI2 and HDMI3 causes device abnormal
- Fixed No ringing tone after plugging in HDMI1 and enabling Always Ring Internal Ringer
- Fixed Custom language setting is invalid in local LCD
- Fixed Redial will be handled by dial plan
- Fixed Background is too bright in Diagnosis test
- Fixed Volume cannot be adjusted by remote control randomly
- Fixed Device doesn't redial when clicking # in home interface
- Fixed Callee will display local preview for a while after video request disappears
- Fixed Modifying account information in web UI will not update account information real-time in Voicemail app in LCD
- Fixed Adding call mode to select when adding members in a call
- Fixed The search result in Contacts in local LCD is inconsistent with the web UI display
- Fixed Noise can be heard after hold/unhold twice in a SRTP call

- Fixed The current line status displayed in call details interface might cause confusion
- Fixed Some saved settings require reboot to take effect but there is no prompt
- Fixed Can not display correctly when using DVI-to-HDMI convertor to connect HDMI 1 to Monitor
- Fixed Device becomes abnormal after automatic video conference many times
- Fixed Can not see cursor when clicking navigation keys among downloaded files in Download apk
- Fixed Text font in some loading prompt box is too small
- Fixed Modifying "User Guide" to "Setup Wizard" in application list
- Fixed Clicking on dial has no response when selecting call log or contacts that has number not matching the dial plan
- Fixed Saving site name prompts "can not be empty" in LCD
- Fixed Remote video still displays being controlled after the controlling party exits camera control
- Fixed Keyboard selection jumps incorrectly in dial interface
- Fixed Voicemail interface displays unreasonable when setting a long account name
- Fixed Call status is not very friendly if the members hold/unhold in the conference
- Fixed Too many contacts cause call delay
- Fixed Adding IP call into conference will prompt dial plan not matched
- Fixed Call can be dialed out even if the number doesn't match dial plan when dialing multiple numbers in web UI
- Fixed The tip is incorrect when dialing from call history
- Fixed Status UI error after callee ends the call
- Fixed Can not select file in Misc. of storage
- Fixed Incorrect wording in System->Applications: Installed app
- Fixed Call status display abnormal when participants hold/unhold
- Fixed The file icon displays abnormal when browsing pictures
- Fixed Device behaves abnormal in displaying presentation after switching VGA IN and HDMI IN repeatedly
- Fixed Remote party camera can be controlled during audio call
- Fixed Default value for site name needs to be modified
- Fixed Notice and status display are not friendly in IP call, Hold and presentation
- Fixed Remote camera control is not updated when the remote party puts the call on hold
- Fixed The matching characters in missed call is not changed to red
- Fixed GVC320X should suggest can not operate conf control when the remote party puts the call on hold
- Fixed system time is not accurate randomly when it's powered on
- Fixed Keyboard selection jumps incorrectly when clicking Next in static IP under WiFi
- Fixed Some language translation is incomplete
- Fixed The screen flashes when factory reset in setup wizard interface
- Fixed Can not download contact files when using HTTP/HTTPS with authorization
- Fixed Can not view or delete the number previously selected in dial interface
- Fixed Turning presentation on should prompt "xxx operate failed" in LCD after the call is put on hold
- Fixed Account status information is not complete via SSH

- Fixed SD card wording is used when using USB disk
- Fixed Call transition animation of call status is not smooth
- Fixed Suggested to add a tip on incoming call when conference is paused
- Fixed The continue recording prompt is not synchronized between local LCD and web UI
- Fixed The presentation frame is stuck when talking with presentation turned on and checking recording file
- Fixed The recording file does not display with thumbnail in FileManager
- Fixed OLED doesn't display NO IP randomly after power cycle without network connected
- Fixed Cannot add BlueJeans call from call history during meeting
- Fixed Prompt shows dial plan error after entering correct IP address and pressing OK button to make direct IP call
- Fixed Input information can not be displayed in Diagnosis mode when plugging in HDMI IN or VGA IN for the first time
- Fixed Plugging in HDMI IN will pop prompt box if there is already presentation turned on using VGA IN
- Fixed Setup Wizard is invalid when using mouse to click the buttons in IPVideoTalk Pro account setting interface
- Fixed There is no error message when dialing one call history entry which doesn't match dial plan
- Fixed SIP account can not be registered via setup wizard when IPVideoTalk Pro account is not enabled
- Fixed Failed to change photo in Skype app from File Manager
- Fixed The audio options in LCD settings are different from web UI
- Fixed Suggest to add file list in the recording app
- Fixed Call history in LCD is inconsistent with web UI
- Fixed No need to match dial plan for direct IP call
- Fixed The notice information displays incorrectly after long time conference