

Grandstream Networks, Inc. GSC3620

FHD Infrared Weatherproof, Varifocal and Auto-Focus

Dome IP Camera

User Manual







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CAUTION

Changes or modifications to this product not expressly approved by Grandstream, or operation of this product in any way other than as detailed by this guide, could void your manufacturer warranty.

WARNING

Please do not use a different power adaptor with devices as it may cause damage to the products and void the manufacturer warranty.





FCC Caution

U.S. FCC part 15 Regulatory Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canada Regulatory Information

CAN ICES-3 (B)/NMB-3(B)





GNU GPL INFORMATION

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DOCUMENT PURPOSE

This document describes how to configure the GSC3620 via web UI menu to fully manipulate device's features. Please visit <u>https://www.grandstream.com/support</u> to download the latest "GSC3620 User Manual".

This guide covers following topics:

- Product Overview
- <u>Getting Started</u>
- Hardware Installation
- GSC3620 Web GUI
- GSC3620 Settings
- Experiencing the GSC3620





CHANGE LOG

This section documents significant changes from previous versions of user manual for GSC3620 Series. Only major new features or major document updates are listed here. Minor updates for corrections or editing are not documented here.

Firmware Version 1.0.7.5

- Added support for GSC3620 new hardware versions: 1.0A, 1.0B.
- Added support for GDMS/TR069. [TR069]

Firmware Version 1.0.5.3

• This is the initial version.





WELCOME

Thank you for purchasing Grand stream's GSC3620 FHD IP Dome Camera, the innovative powerful weatherproof Vari-focal and Auto-Focus camera. The GSC3620 is a ceiling-mounted fixed dome IP camera with a 3.6mm lens - making it an ideal device for wide-angle monitoring of nearby subjects in environments such as banks, hotels, retail stores, offices, warehouses, and building entrances. GSC3620 supports motion detection and smart infrared technology for white balance and exposure to monitor activity at night in outdoor or dark enclosed spaces. The GSC3620 can be managed with GSURF Pro, Grandstream's free video management software, along with other ONVIF-compliant video management systems. It pairs with Grandstream's video phones and GSC3570 HD intercom and facility control station for active end-point monitoring and facility control. By adding weatherproof capabilities, this is an ideal device for increasing security and facility management in any indoor or outdoor area.

Designed for both indoor and outdoor environment, the GSC3620 IP Camera ensures ease of use, integration, and deployment, with multilingual graphical user interface, provides powerful solution to professional surveillance applications.

This manual will help you to learn how to operate and manage your GSC3620 FHD Infrared Weatherproof Vari-focal and Auto-Focus, Dome Camera, and make the best use of it.





PRODUCT OVERVIEW

Feature Highlights

The following table contains the major features of the GSC3620:

Table 1: GSC3620 Features in a Glance

	Motion detection
	Vari-focal and Auto-Focus
	Smart infrared technology for optimal white balance and exposure
GSC3620	• Built-in PoE to power the device and provide a network connection
GRANDSTREAM	Alert notifications via outbound voice or video call & email screenshot
	IP67-level weatherproof capability
	• Primary stream 1920x1080 and Secondary stream 640x480
	• SIP/VoIP support for video and audio streaming to endpoints (external
	microphone required)

GSC3620 Technical Specifications

The following table resumes all the technical specifications including the protocols / standards supported, voice codecs, telephony features, languages, and upgrade/provisioning settings for GSC3620.

Network Protocol	SIP RFC3261, TCP/IP/UDP, RTP/RTCP, HTTP/HTTPS, ARP, ICMP, DNS (A record, SRV, NAPTR), DHCP, SSH, TFTP, NTP, STUN, LLDP-MED, TLS, SRTP
Image Sensor Resolution	1/2.7" CMOS Sensor, 2 megapixels (2MP), 1920(H)x1080(V) resolution
Video Compression	H.264JPEG/MJPEG
Supported Maximum Video Resolution	Primary Stream: 1920x1080; 1280x960; 1280x720 Secondary Stream: 1280x720; 704x576; 640x480; 352x288; 320x240
Video Output	Network
Audio	Line-In: 1 x 3.5mm, 1-50mVpp; Line-Out: 1 x 3.5mm, 560Ω, 4.0Vpp
Scanning System	Progressive

Table 2: GSC3620 Technical Specifications





Image Configuration	Saturation, Brightness, Contrast, Sharpness, White Balance
Focal Length	2.8mm - 12mm Vari-Focal, Electronic Auto-Focus
Infrared LED	42µ x 2, up to 25M, Auto Control
Ethernet	One RJ-45 (10/100Base-T) Port with PoE
ONVIF	Yes, Profile S
Day/Night	Color/ Black &White (IR-CUT)
Motion Detection	Supported
Language Supported	Multi-Language
Privacy Mask	4 Rectangular Zones
Weatherproof Grade	Metal, IP67-level weatherproof capability
Power	DC12V±10%,1A (Power Adapter NOT Included) PoE: Support IEEE 802.3af
Temperature / Humidity	-20 °C ~ 60 °C, RH95% Max
Weight and Dimensions	Unit: 714g, Dimension: 128 x 108 (LxH) mm; Package Weigh: 900g
Compliance	FCC, CE, RCM, IC





GETTING STARTED

This chapter provides basic installation instructions including the list of the packaging contents and also information for obtaining the best performance with the GSC3620.

Equipment Packaging

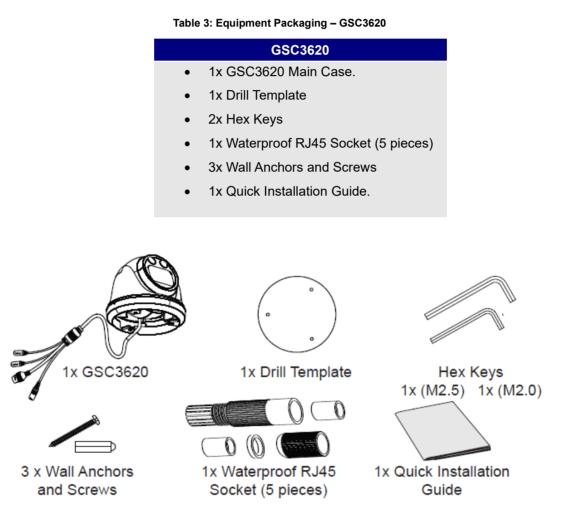


Figure 1: GSC3620 Package Content

Note:

Check the package before installation. If you find anything missing, contact your system administrator.





Powering and Connecting the GSC3620

The GSC3620 can be powered either using the right PSU (DC12V, 1A) or using a PoE switch, please refer to illustration below to do the wiring and connect the waterproof RJ45 socket:

Option A (Recommended)

 Based on T-568B (see diagram below) to install the RJ45 plug, tighten the connector using the provided waterproof socket.



2. Connect other end of the cable into a switch supporting Power over Ethernet.

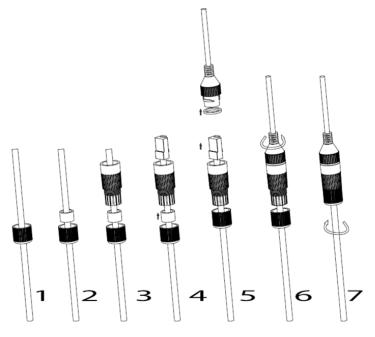


Figure 2: RJ45 plug installation

Option B

- 1. Wire the cable and connect it to a network switch as in the figure above.
- 2. Connect a 12VDC, 1A (minimum) Power Adapter (not provided) to the power socket of the GSC3620 tail cable. Make sure the polarity "+" (center) and "-" (outside) are correctly connected.

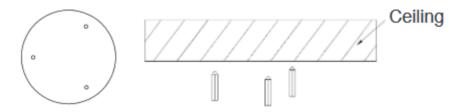




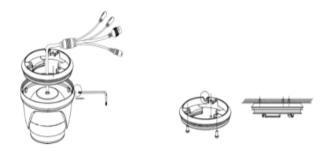
HARDWARE INSTALLATION

Mounting GSC3620

Step 1: Use supplied drill template to drill holes at ceiling. Select appropriate anchors or screws based on ceiling material.



Step 2: Remove the top cover of the camera by turning it counterclockwise as shown in the figure below. Refer to the arrow and small notch on the machine body as shown below to align the machine cover.



Step 4: Hold the body of camera and align to the notch as shown in the diagram, then push the body of camera into the cover of camera already mounted at the ceiling.

Step 3: Place the cable into the groove of camera cover, mount the cover into ceiling using provided screws as shown in below diagram. Leave the connectors of cable dangling outside the cover.





Figure 3: Mounting GSC3620





GSC3620 APPLICATION SCENARIOS

GSC3620 is very versatile infrared IP Camera, it can be used in a lot of scenarios.

LAN without Internet

For multi-room or a bigger space, multiple GSC3620 might be required. User can establish a local area network using PoE switch.

If remote access required, a router with internet access may add in.

Equipment List:

- 1. Several GSC3620
- 2. Ethernet cables
- 3. Switch (Static IP required to configure to IP Cameras)
- 4. PoE Switch (Optional, better solution)

Note: If remote access to the cameras required to view the LIVE video stream, then broadband Internet is required, and more equipment required:

- 5. Router (if DHCP configured than static IP is not required although still recommended)
- 6. iPhone or Android phone. (Application like "IP Cam Viewer")



Figure 4: GSC3620 Working in LAN





LAN with Internet

For multi-room or a bigger space, with Internet access and local video recording required, following list is recommended:

Equipment List:

- 1. Several GSC3620
- 2. Ethernet cables
- 3. Switch (PoE Switch recommended)
- 4. Router
- 5. Broadband Internet Access (FiOS, Cable or DSL)
- 6. iPhone or Android phone. (Application like "IP Cam Viewer")
- 7. VMS GSurf_Pro Remote Access (Optional)



Figure 5: GSC3620 working with Internet





Application Peripheral Connection

Below is the illustration of GSC3620 peripheral connections for related application. (Audio_Out) **Ceiling Speaker** GRANDSTREAM (Audio_In) **External Microphone** Two-wav Audio & Video via Network **Remote Peering** Siren GXV3500 Decoder **Grandstream Audio & Video Phones**

Grandstream Audio & Video Phones GXP21xx | GRP2600 | GXV33xx series



• Audio Output and Input using 3.5mm interface must match below parameters:

Audio Output	3.5mm Line-Out, 560Ω, 4.0Vpp
Audio Input	3.5mm Line-In, 1-50mVpp

 Grandstream Audio & Video Phones (GXP21xx, GRP2600 & GXV33xx) can work with GSC3620 via either Peer IP (LAN) or SIP extension (WAN). Peer to Peer (or Direct IP) works only at LAN using static IP; SIP extension requires related SIP server/proxy provided and configured.





GSC3620 WEB GUI

Note the below requirement to access/configure the GSC3620:

- Internet Browser like Firefox, Chrome, Microsoft Internet Explorer.
- DHCP server enabled on the network.

Two ways exist for Windows user to get access to the GSC3620:

UPnP

By default, the GSC3620 has the UPnP feature turned ON. For customers using Windows network with UPnP turned on (most SOHO routers support UPnP), it is easy to access the GSC3620:

- 1. Find the "Network" icon <u>Network</u> on the windows Desktop.
- 2. Click the icon to get into the "Network", the GSC3620s will list as "Other Devices" shown. Refresh the pages if nothing displayed. Otherwise, the UPnP may not be active in the network.
- 3. Click on the displayed icon of related GSC3620, the default browser (e.g.: Internet Explorer, Firefox, or Chrome) will open and connect directly to the login webpage.

GS Search

Double check the requirements then follow the below steps to access the GSC3620 WEB configuration page:

- 1. Download and install GS_Search tool from the link below: https://www.grandstream.com/products/tools/surveillance/GS_Search.zip
- 2. Run the Grandstream GS_Search tool.
- 3. Click on Search button to start device detection.
- 4. The detected devices will appear in the output field as below.





Index	Model	Version	Device Name	IP	HTTP Port	RTSP Port	MAC
5	IPCAMERA GXV3610_HD	1.0.3.23		192.168.5.30	80	554	00:0B:82:71:C3:4
6	IPCAMERA GXV3610_HD	1.0.3.23		192.168.5.38	80	554	00:0B:82:71:C3:3
7	IPCAMERA GXV3610_HD	1.0.3.23	Production 3	192.168.5.36	80	554	00:0B:82:71:C3:E
8	IPCAMERA GXV3610_HD	1.0.3.23	Production 1	192.168.5.41	80	554	00:0B:82:71:C3:4
9	IPCAMERA GXV3610_HD	1.0.3.23		192.168.5.32	80	554	00:0B:82:71:C3:3
10	IPCAMERA GXV3610_HD	1.0.3.23		192.168.5.35	80	554	00:0B:82:71:C3:E
11	IPCAMERA GXV3611IR_HD	1.0.3.23		192.168.5.33	80	554	00:0B:82:75:F5:3
12	IPCAMERA GXV3610_HD	1.0.3.23	Training room	192.168.5.42	80	554	00:0B:82:71:C3:3
13	IPCAMERA GXV3611IR_HD	1.0.3.23	Conf room	192.168.5.37	80	554	00:0B:82:71:19:B
14	IPCAMERA GSC3610	1.0.3.7	GSC3610	192.168.5.196	443	554	C0:74:AD:1D:B2:
15	IPCAMERA GSC3620	1.0.5.3	GSC3620	192.168.5.207	443	554	C0:74:AD:2E:E8:
16	IPCAMERA GXV3611IR_HD	1.0.3.23	Smoking room	192.168.5.39	80	554	00:0B:82:71:1B:5
<							>

Figure 7: GS_Search tool

5. Double click on the detected device. The default browser (Chrome in this example) will open to display the camera's login web interface.

GRANDSTREAM		English Y A
	Welcome to GSC3620	
	▲ Please enter Username Please enter Password	
	Forgot Password ? Login	
	Copyright © Grandstream Networks, Inc. 2020. All Rights Reserved.	

Figure 8: GSC3620 Login Page

- When clicking on the "Language" drop down, supported languages will be displayed. Click to select the related webpage display language. (Current firmware supports only English as default and simplified Chinese).
- 6. Username and password are required to login the camera to manage the device.





The default username is "admin"; the default password is a random password printed in a sticker which can be found on the camera body or cable.

 The default connection is via HTTPS. Once input the correct username and password, the device configuration webpage will be available.

Web GUI Settings

The GSC3620 embedded Web server responds to HTTP/HTTPS GET/POST requests. Embedded HTML pages allow users to configure the application phone through a Web browser such as Microsoft's IE, Mozilla, Firefox, Google Chrome and etc.

• Once logged in successfully to the GSC3620, the browser will display the GUI as shown below:

S GSC3620		
	System Info	
LiveView ~	Product Model	GSC3620
System Settings ·	Hardware Version	V1.0A
Account ~	Part Number	9670007410A
Phone Settings	Serial Number	21JD61GL902EE82B
Video & Audio Settings ~	Boot Version	1.0.5.3
Alarm Settings	Core Version	1.0.5.3
Email & FTP Settings ~	Base Version	1.0.5.3
Maintenance ~	Prog Version	1.0.5.3
Status ^	System Uptime	6 minutes
System Info	Firmware Status	Press check button and reload page to check firmware availability.
Network Info		Check
GNU GPL License		

Figure 9: GSC3620 Web GUI

Table 4: GSC3620 WEB GUI Sections

Fields	Description
LiveView	Access to live view stream page.
1	Play the primary stream.
2	Play the secondary stream.





System Settings	Access to "System Settings" page.
Account	Access to "Account" configuration page.
Phone Settings	Access to "Phone Settings" configuration page.
Video & Audio Settings	Access to "Video & Audio settings" page.
Alarm Settings	Access to "Alarm settings" page.
Email & FTP Settings	Access to "Email & FTP Settings" page.
Maintenance	Access to "Maintenance" page.
Status	Click to enter "Status" page.





GSC3620 SETTINGS

Live View Page

This page allows users to view the live video of the GSC3620.

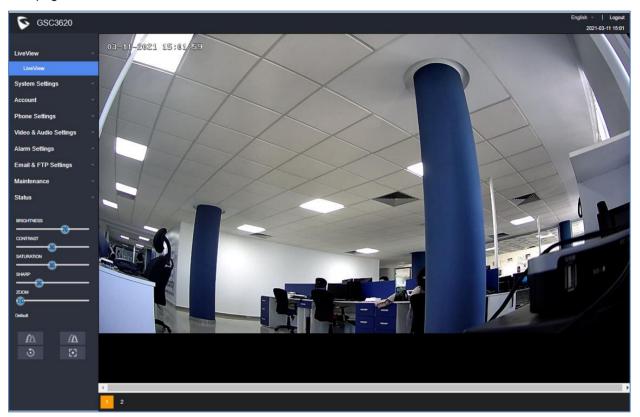


Figure 10: Live View

Two streams are available:

- Primary video stream: 1920*1080 resolution, recommended for continuous full HD recording
- Secondary video stream: 640*480 resolution, recommended for SIP/VoIP video calls

Note: Make sure to download/Install the browser video plugin to have access to the Live View and video stream tools.

Vari-focal and Auto-Focus Settings

At the "LiveView" page, sliding the "ZOOM" bar left or right to zoom out/in the lens; click "Focus+/–" to fine tune the focus; or click "One key focus" to let system auto-focus the scene; click "initialize lens" to go back to default.



Figure 11: GSC3620 Zoom





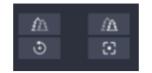


Figure 12: GSC3620 Auto-Focus Settings

Table 5: GSC3620/GSC362 Auto-Focus Settings Description

Fields	Description
źΔ	Focus+
Ê	Focus-
. 🖸	One Key Focus
٢	Initialize Lens

Notes:

- After adjusting the focal length of the lens or click "One Key Focus", the device will automatically adjust the image definition (no other lens operation allowed during the auto-focus process).
- Due to the scene limitation, the effect of "one key focus" may not always be satisfied. When this happened, it is recommended manually click the "Focus+/-" button to fine tune and complete the focus operation.
- If after several round of zoom and focus, the image is still not clear, please click "Initialize lens" to reset the lens by removing the accumulated errors of the lens.

System Settings

This page allows users to configure date and time, network settings as well as access method to the GSC3620 and password for accessing the Web GUI.

Date & Time Settings

This page allows users to adjust system date and time.





	Date & Time		
LiveView ·	System Time	1980-01-01 02:10:40	Sync PC
Date & Time	Allow DHCP Option 42 to override NTP server		
Network Settings	Time Zone Enable NTP	Auto	ļ
TR069	NTP Server	pool.ntp.org	
Access Settings User Management	Update Interval(m)	1440	

Figure 13: Date & Time Page

Table 5: Date & Time			
System Time	Displays the current system time.		
Allow DHCP Option 42 to override NTP server	Defines whether DHCP Option 42 should override NTP server or not. When enabled, DHCP Option 42 will override the NTP server if it is set up on the LAN. The default setting is "Yes".		
Sync PC	Clicks to synchronize current time with the computer.		
Time Zone	Selects from drop down menu the preferred time zone. Default is "Auto"		
Enable NTP	Enables NTP to synchronize device time.		
NTP Server	Configures the domain name of NTP server. Default is "pool.ntp.org"		
Update Interval	Configures the Interval (in minutes) to retrieve updates from the NTP server.		

Network Settings

This page allows users to set either a static or DHCP IP address to access the unit.





	Basic Settings		
LiveView ~	IP Address Config		
System Settings ^	IP Address Mode		
Date & Time	IP Address Mode	DHCP Static IP	
Network Settings	IP Address	192 168 5 209	
TR069	Subnet Mask	255 .255 .255 .0	
Access Settings	Gateway	192 168 5 1	
User Management	DNS Config		
Account ~	DNS Address Type	Oynamic DNS Static DNS	
Phone Settings ~	DNS Server 1	8 8 8 8	
Video & Audio Settings v	DNS Server 2	8 8 4 4	
Alarm Settings v			
Email & FTP Settings -	LLDP Config		
Maintenance v	Enable LLDP	Disable Enable	
Status	Layer 2 QoS 802.1Q/VLAN Tag	0	
- Status	Cayer 2 QoS 802.1p Priority Value	0	

Figure 14: Basic Settings Page

Table 6: Basic Settings

IP Address Mode	Selects DHCP or Static IP. Default DHCP. (Static recommended)		
IP Address	Configures the Static IP of the GSC3620.		
Subnet Mask	Configures the Associated Subnet Mask.		
Gateway	Configures the Gateway IP address.		
DNS Address Type	Specifies the DNS type used: Dynamic DNS or Static DNS.		
DNS Server 1	Configures DNS Server 1 IP address.		
DNS Server 2	Configures DNS Server 2 IP address.		
Enable LLDP	Controls the LLDP (Link Layer Discovery Protocol) service. The default setting is "Enabled".		
Layer 2 QoS 802.1Q/VLAN Tag	Assigns the VLAN Tag of the Layer 2 QoS packets. Default value is 0.		
Layer 2 QoS 802.1p Priority Value	Assigns the priority value of the Layer2 QoS packets. Default value is 0.		





Notes:

- If the device is behind SOHO (Small Office Home Office) router with port forwarding configured for remote access, static IP should be used to avoid IP address changes after router reboot.
- TCP port above 5000 is suggested to Port forward HTTP for remote access, due to some ISP would block port 80 for inbound traffic. For example, change the default HTTP port from 80 to 8088, to make sure the TCP port will not be blocked.
- In addition to HTTP port, RTSP port is also required to configure via port forwarding, so that the remote party can view the video stream.

TR069

This page allows users to set TR-069.

	TR069	
LiveView ~	Enable TR-069	(ma)
System Settings ^		
Date & Time	@ACS URL	https://acs.gdms.cloud
Network Settings	OACS User Name	
TR069	ACS Password	•••••
Access Settings	Periodic Inform Enable	
User Management	Periodic Inform Interval (s)	60
Account ~	Connection Request User Name	
Phone Settings	Connection Request Password	•••••
Video & Audio Settings 🛛 🗸	Connection Request Port	7547
Alarm Settings		
Email & FTP Settings ·	@CPE Cert File	
Maintenance ~		
Status ~	@CPE Cert Key	

Figure 15: TR069 Settings Page

This feature allows centralized management and provisioning of mass product operations. This is very useful for ITSP customers and enterprise solutions. With GDMS management, customers can manage, provision the GSC3620 from GDMS platform.

For detailed management and usage of this feature, please refer to Grandstream Device Management System (GDMS) product page: <u>http://www.grandstream.com/products/device-management/gdms</u>





Table	6:	TR069	Settings
-------	----	-------	----------

ACS URL	Specifies URL of TR-069 ACS (e.g.,http://acs.mycompany.com), or IP address. Default setting is "https://acs.gdms.cloud"	
TR-069 Username	ACS username for TR-069.	
TR-069 Password	ACS password for TR-069.	
Periodic Inform Enable	Enables periodic inform. If set to "Yes", device will send inform packets to the ACS.	
Periodic Inform Interval	Sets up the periodic inform interval to send the inform packets to the ACS. The default value is "60".	
Connection Request Username	The username for the ACS to connect to the phone.	
Connection Request Password	The password for the ACS to connect to the phone.	
Connection Request Port	The port for the ACS to connect to the phone. The default value is "7547".	
CPE Cert File	The Cert File for the phone to connect to the ACS via SSL.	
CPE Cert Key	The Cert Key for the phone to connect to the ACS via SSL.	

Access Settings

This page configures the GSC3620 access control parameters.

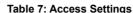
	Access Settings		
LiveView ·	Web Access Mode	HTTPS	
Date & Time	Web Access Port	443	
Network Settings	MJPEG Authentication Mode	Challenge+Response	
TR069	RTSP Port	554	
Access Settings	OUser Login Timeout(min)	5	
User Management	Maximum Number of Login Attempts	5	
Account ~	Locking Time of Login Error (m)	5	
Phone Settings ~	Obisable Web Access		
Video & Audio Settings v	Enable UPnP Discovery	V	
Alarm Settings v	Enable Anonymous LiveView		
Email & FTP Settings -	Enable SSH		
Maintenance ~	SSH Port	22	
Status ~	RTSP Password		

Figure 16: Access Settings Page





Table 7: Access Settings			
Web Access Mode	Selects the access mode to the Web GUI either HTTP or HTTPS.		
Web Access Port	Specifies the TCP port for Web Access, default 443.		
	Allows 3 rd party system integrator or developers to implement related		
	application for users. By default, this feature is disabled and use more		
	secured "Challenge+Response" mode.		
	If enabled, user can send HTTP API with correct credentials to retrieve		
	MJPEG video stream or JPEG snapshot from GSC.		
	Notes:		
MJPEG Authentication	1- The MJPEG stream can be retrieved via the following URL		
Mode	HTML based →		
	http(s)://admin:password@IP_GSC3620:Port/jpeg/mjpeg.html		
	Stream -> http(s)://admin:password@ip:port/jpeg/stream		
	2- The MJPEG stream retrieved via the methods above is running on		
	the background and cannot be tuned. If users want more flexibility,		
	they can use the three configurable video streams as shown on		
	[Retrieving Video Streams]		
RTSP Port	Specifies RTSP port for media stream, default TCP port 554.		
	If no action is made within this time the GSC3620 will logout from the Web		
User Login Timeout(min)	GUI, range is between 3 and 60. Default is 5.		
	Specifies the allowed login times error limit, if the unsuccessful login		
Maximum Number of Login Attempts	attempts exceed this value, the GSC3620 webGUI will be locked for the		
Login Attempts	time specified in Login Error Lock Time. Default is 5.		
Locking Time of Login	Specifies how long the GSC3620 is locked before a new login attempt is		
Error (m)	allowed. Default is 5.		
	Allow or deny the web access to the GSC3620. (HTTP API do not take		
Disable Web Access	effect when this option is enabled).		
	Note: If both WebUI and SSH are disabled, GSC3620 will get blocked		
	and not be able to be accessed. Only two ways to get it back:		
	1. Re-provisioned by ITSP or Service Provider (by adjusting the related		
	parameters)		
	2. Hard Reset (GSC3620 has to be offline and uninstalled to perform		
	this hard reset).		
Enable UPnP Discovery	UPnP (or mDNS) function for local discovery. Default setting is enabled.		
,			







Enable Anonymous LiveView	 When enabled, user can display the camera stream from without admin credentials using the following URL scheme: http(s)://GSC3620_IP:port/videoview.html User can also retrieve a real-time snapshot without admin credentials using the following URL: http(s)://IP:port/anonymous/snapshot/view.html Or with: https://IP_GSC3620:Port/anonymous/snapshot/view.jpg To retrieve video stream via RTSP, users can use the following format: rtsp://IP_GSC3620:Port/X where X=0,4 for 1st, 2nd streams, respectively. 	
Enable SSH	Allows SSH access for remote secured configuration purposes (restart, upgrade, provision)	
SSH Port	Specifies the SSH port. Default setting is 22.	
RTSP Password	This password can be used for RTSP stream display.	

Retrieving Video Streams

RTSP Stream

To retrieve video stream via RTSP, users can use the following format:

rtsp://admin:password@IP_GSC3620:Port/X where X=0,4 for 1st, 2nd streams respectively

MJPEG Stream

The GSC3620 supports MJPEG Stream live viewing via HTTP API commands, this can be used without installing the Live view browser plugin. Users can deploy two methods to retrieve MJPEG stream depending on *MJPEG Authentication Mode,* which can be set under following path:

Web UI → System Settings → Access Settings

	Access Settings		
► LiveView ~	Web Access Mode	HTTP	,
Door System Settings	Web Assess Data		
System Settings	Web Access Port	80	
	MJPEG Authentication Mode	Challenge+Response	
Date & Time		Challenge+Response	
Network Settings	RTSP Port	Basic	
Access Settings	User Login Timeout(min)	5	
Access Octaings	Maximum Number of Login Attempts		Γ́Γ
User Management	Maximum Number of Login Attempts	°	

Figure 17: MJPEG Authentication Mode





A. <u>"Challenge+Response" MJPEG Authentication Mode:</u>

In order to get live view stream using MJPEG stream over HTTP command on this mode, please fellow below steps:

1. In browser type in http(s)://IP_Address_GSC3620:Port/jpeg/mjpeg.html

Example: https://192.168.5.146/jpeg/mjpeg.html

- 2. The browser will pop up the window above asking for credentials, user needs to enter admin credential.
- 3. The browser will show MJPEG stream (720p).
- B. "Basic" MJPEG Authentication Mode:

Please follow below steps in order to take a snapshot via HTTP commands:

- 1. In browser type in: http(s)://admin:password@IP_Address_GSC:Port/jpeg/mjpeg.html Example: <u>https://admin:admin@192.168.5.157:443/jpeg/mjpeg.html</u>
- 2. The browser will show MJPEG stream (720p).

Note: Similar command can be applied to open source application like VLC Media Player to retrieve H.264

video stream with better quality: rtsp://admin:password@IP_GSC3620:Port/X

Where X=0,4 corresponded to 1st, 2nd video stream

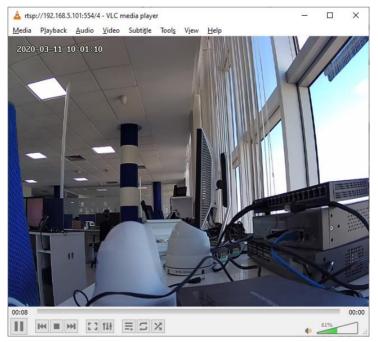


Figure 18: RTSP steam display using VLC





User Management

This page allows users to configure the password for administrator. Since this is a door system which must be a secure product, the use is only limited to administrator.

	User Management		
LiveView *	Password Recovery Email is not configured. Please in	nput Password Recovery Email address and configure a valio	SMTP service in Email Settings Page.
System Settings ^	Change Password		
Date & Time	Old Password		
Network Settings	New Password		
Access Settings			
User Management	Confirm New Password		
P Account ~	Change Recover Email		
Phone Settings	Password Recover Email Address		Email Settings
🖴 Video & Audio Settings 🛛 🗸			

Figure 19: User Management Page

Table 8: User Management

Old Password	Old password must be entered to change new password.	
New Password	Fill in the revised new password in this field.	
Confirm User Password	Re-enter the new password for verification, must match.	
Password Recovery Email Address	This option is highly recommended, as if the password is lost, you can	
	recover it on the configured Email address.	
	Note: Make sure to configure SMTP Email Settings under "Email Settings"	

Note:

 When trying to change the password, users need to set the "Password Recovery Email" which should be a valid Email account configurable under "Email & FTP Settings →Email Settings" to retrieve the email before the new admin password take effect as displayed on the following screenshot.

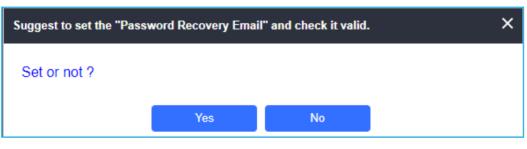


Figure 20: Password Recovery Email





Account

The GSC3620 supports 4 SIP accounts and 4 lines, this section covers the configuration of basic and advanced sip settings for each account.

Account 1 - 4

This page allows the administrator to configure the SIP account basic and advanced settings for each SIP account:

	Account 1	
LiveView	SIP Basic Settings	
System Settings	Account Active	
Account ^	Account Name	
Account 1	SIP Server	
Account 2	Outbound Proxy	
Account 3 Account 4	Backup Outbound Proxy	
	DNS Mode	A Record
Phone Settings	SIP User ID	
🖶 Video & Audio Settings 👒	Authentication ID	
👃 Alarm Settings 🛛 👻	Password	
Email & FTP Settings ^	TEL URI	Disabled
🔧 Maintenance 🛛 🗸		Disabled
③ Status ~	SIP Advanced Settings	
	Registration Expiration(m)	60
	Re-register before Expiration(s)	0
	Local SIP Port	5060
	SIP Transport	UDP 🗸
	Stream	Stream 2
	Enable DTMF	RFC2833 SIP INFO
	DTMF Payload Type	101
	Unregister On Reboot	
	NAT Traversal	Auto
	Enable SRTP	Disabled
	Special Feature	Standard
	Outbound Proxy Mode	In Route
	Enable RTCP	Disabled
	H.264 Payload Type	99
	Accept Incoming SIP from Proxy Only	
	Vocoder Settings	
	Preferred Vocoder 1	PCMU
	Preferred Vocoder 2	PCMA 🗸
	Voice Frames Per TX	2

Figure 21: SIP Account Settings Page





	Table 9: SIP Account Basic & Advanced Settings
SIP Basic Settings	
Account Active	This field indicates whether the account is active.
	Default setting is "Yes".
Account Name	Configures the SIP account name used for identification.
SIP Server	Configures the FQDN or IP of the SIP server from VoIP service provider or local IPPBX.
	Configures the IP address or the domain name of the outbound proxy, media
Outbound Proxy	gateway, or session border controller. It is used by the GSC for firewall or NAT penetration in different network environments.
	If a symmetric NAT is detected, STUN will not work and only an outbound proxy can provide a solution.
Backup Outbound Proxy	Configures the backup outbound proxy to be used when the "Outbound Proxy" registration fails. By default, this field is left empty.
	Configure which DNS mode will be used to translate the SIP Server FQDN (Default
	value is A Record):
DNS Mode	A Record.
	• SRV.
	NAPTR/SRV.
SIP User ID	Configures the SIP username or telephone number from ITSP.
	Note: Letters, digits and special characters including @ are supported.
Authenticate ID	Configures the Authenticate ID used by SIP proxy.
Password	Sets the Authenticate password used by SIP proxy.
	Note: For security reasons, the SIP password is invisible on the web UI.
	Select "User=Phone" or "Enabled" from the dropdown list.
	If the SIP account has an assigned PSTN telephone number, this field should be
TEL URI	set to "User=Phone". Then a "User=Phone" parameter will be attached to the
	Request-Line and "TO" header in the SIP request to indicate the E.164 number. If
	set to "Enable", "Tel:" will be used instead of "SIP:" in the SIP request. The default
CID Advanced Cettin	setting is "Disable".
SIP Advanced Settin	
Registration	Sets the registration expiration time.
Expiration (m)	Default setting is 60 minutes. Valid range is from 1 to 64800 minutes.
Re-register before	Specifies the time frequency (in seconds) that the GSC3620 sends re-registration
Expiration (s)	request before the Register Expiration. The default value is 0. Range is from 0-
	64800 seconds.

Table 9: SIP Account Basic & Advanced Settings





Local SIP Port	Sets the local SIP port. Default setting is 5060 for Account 1, 5062 for Account 2, 5064 for Account 3, 5066 for Account 4.	
SIP Transport	Chooses the SIP transport protocol. UDP, TCP or TCP/TLS.	
	Default setting is UDP.	
Stream	Select the Video stream to be used by the GSC3620 when call is made from this SIP Account.	
	Default is Stream 2.	
	Specifies the mechanism to transmit DTMF digits. There are 2 supported modes:	
Enable DTMF	• RFC2833 sends DTMF with RTP packet. Users can check the RTP packet to see the DTMFs sent as well as the number pressed.	
	• SIP INFO uses SIP INFO to carry DTMF. Default setting is "RFC2833"	
DTMF Payload	Configures the payload type for DTMF using RFC2833.	
Туре	Default value is 101. Range: 96~127.	
Unregister on Reboot	Allows the SIP user's registration information to be cleared when the GSC reboots. The SIP REGISTER message will contain "Expires: 0" to unbind the connection.	
	This parameter configures whether the NAT traversal mechanism is	
	activated. Users could select the mechanism from No, STUN, Keep-alive,	
	UPnP, Auto. The default setting is "No".	
	If set to "STUN" and STUN server is configured, the GSC will route according to the STUN server. If NAT type is Full Cone, Restricted Cone or	
NAT Traversal	Port-Restricted Cone, the unit will try to use public IP addresses and port	
	number in all the SIP&SDP messages.	
	The GSC will send empty SDP packet to the SIP server periodically to keep the NAT port open if it is configured to be "Keep-alive". Configure this to be "No" if an outbound proxy is used. "STUN" cannot be used if the detected NAT is symmetric NAT. If the firewall and the SIP device behind the firewall are both able to use UPNP, it can be set to "UPNP". Both parties will negotiate to use which port to allow SIP through.	
	Enable SRTP mode based on your selection from the drop-down menu.	
Enable SRTP	The default setting is " Disabled ", the two other modes are " Enabled but Not Forced" and "Enabled and Forced".	
	Configures GSC settings to meet different vendors' server requirements.	
Special Feature	Users can choose from Standard, BroadSoft or Telefonica Spain.	
	The default setting is "Standard".	





Outbound Proxy Mode	In route: outbound proxy FQDN is placed in route header. This is used for the SIP Extension to notify the SIP server that the device is behind a NAT/Firewall.	
	Always sent to: SIP messages will always be sent to Outbound proxy.	
	Not in route: remove the Route header from SIP requests.	
	This option allows 3rd party Service Provider or Cloud Solution to monitor	
Enable RTCP	the operation status of the GSC3620 by using related SIP Calls.	
	By default, it is disabled. Users can choose either RTCP or RTCP-XR.	
H.264 Payload Type	The H.264 payload type can now be configured to be compatible with 3 rd party video phones, as well as other advanced SIP settings, to easy system integration process. Default is 99.	
Accept Incoming SIP from Proxy Only	When set to "Yes", the SIP address of the Request URL in the incoming SIP message will be checked. If it does not match the SIP server address of the account, the call will be rejected. The default setting is disabled.	
Vocoder Settings		
Preferred Vocoder 1	Select audio codec to prioritize. Supported codecs are: PCMU and PCMA.	
Preferred Vocoder 2	Select the second audio codec PCMU or PCMA.	
	Configures the number of voice frames transmitted per packet. When	
	configuring this, it should be noted that the "ptime" value for the SDP will	
Voice Frame Per TX	change with different configurations here. This value is related to the codec	
	used and the actual frames transmitted during the in-payload call. For end	
	users, it is recommended to use the default setting, as incorrect settings may influence the audio quality. Range is from 1-64. The default setting is 2.	
	initiation and addite quality. Manyo is norm 1-04. The actability is Z.	





Phone Settings

The phone settings allow users to configure the GSC3620 phone settings and the White list for all the SIP accounts.

Phone Settings

This page allows users to configure the GSC3620 phone settings.

- 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Phone Settings	
► LiveView	STUN Server	
P System Settings	Local RTP Port	5004
P Account	Use Random Port	
Phone Settings		
Phone Settings	Auto On-Hook Timer(s)	300
Account 1 White List	Ringing Timeout(s)	30
Account 2 White List	SIP TLS Certificate	
Account 3 White List	SIF ILS Celuicate	
Account 4 White List		
📇 Video & Audio Settings 🛛 🗸	SIP TLS Private Key	
🐥 Alarm Settings 🛛 🗸 🗸		
🗢 Email & FTP Settings 🛛 🗸	SIP TLS Private Key Password	•••••
▲ Maintenance	Enable Direct IP Call	
	Enable two-way SIP Calling	
③ Status ~	SIP Proxy Compatibility Mode	
	SIP Packetization Compatibility Mode	
	Enable Multi-channel Call Mode	
	Allow Reset Via SIP NOTIFY	

Figure 22: Phone Settings Page

Table 10: Phone Settings

STUN Server	Configures the STUN server FQDN or IP. If the device is behind a non-symmetric router, STUN server can help to penetrate & resolve NAT issues.	
Local RTP Port	Sets the local RTP port for media. Default setting is 5004. Range between 1024~65400.	





	Forces the GSC3620 to use random ports for both SIP and RTP messages. This is usually necessary when multiple units are behind the same full cone NAT. The	
Lise Random Port	default setting is "Disabled"	
	Note: This parameter must be set to "Disabled" for Direct IP Calling to work.	
Auto On-Hook	k Configures the auto on-hook timer (in seconds) for automatic disconnecting the SIP call. Default setting is 300. Range between 0~65535.	
	Specifies the Ring timeout, when no reply is returned from the called party after	
King Timeout(3)	exceeding this field, the GSC3620 will hang up the call. The value is in the range of 0s – 90s. By default, it is "30" seconds.	
SIP TLS Certificate	Input the TLS certificate here for encryption.	
SIP TLS Private Key	Input private key here for TLS security protection.	
SIP TLS Private Key Password	Specifies the password for SIP TLS private Key.	
Enable Direct IP	Accepts peer-to-peer IP call (over UDP only) without SIP server. Default is "Enabled".	
Enable two-way	Allows the user to enable/disable the alarm sound during a SIP call triggered by doorbell pressing.	
Compatibility	Enables more proxy compatibility with cost of bandwidth, the SIP call will send audio no matter what.	
SIP Packetization	When enabled, the GSC3620 will have in SDP "packetization-mode = 0". This is required when the device is interacting with legacy video phones that only accepts	
	this value to decode the RTP.	
channel Call	This feature allows the device to receive multiple calls at the same time, with one active and others on hold (up to 4 calls maximum).	
	Allows to factory reset the devices directly through SIP Notify.	
	If "Allow Reset Via SIP NOTIFY" is "check", then once the GSC3620 receives the	
	SIP NOTIFY from the SIP server with Event: reset, the device will perform a factory reset after authentication.	
	This authentication can be either with:	
SIP NOTIFY	The admin password if no SIP account is configured on the unit.	
	• The SIP User ID and Password credentials of the SIP account if configured	
	on the unit.	
	Default is unchecked (disabled).	





Account [1-4] White List

This page allows users to configure the white list per account, which is a phone number or extension list that can call the GSC3620. (The call will be automatically answered when calling from a phone set on the white list, and all other inbound calls will be blocked), the user can configure up to 30 white phone numbers per SIP account. Moreover, besides numbers associated to active cards, and numbers on the "Number Called When Doorbell Pressed" setting, all whitelisted numbers can open door remotely by using the respective PIN code.

	Account 1 White List		
▶ LiveView	Enable White Number List		
System Settings	Phone Number 1	2000	فر
P Account	Phone Number 2	10.10.1.20:5064	
Phone Settings	> Phone Number 3		
Phone Settings	Phone Number 4		
Account 1 White List	Phone Number 5		
Account 2 White List Account 3 White List	Phone Number 6		فر
Account 4 White List	Phone Number 7		د.

Figure 23: White List Page

The table below gives a brief overview of the options:

Table 11: White List

Enable White Number List	Enables the White List feature.
Phone Number 1 - 30	 Adds a new phone number (or IP address) to the white list. Notes: When using IP addresses, the port number should be appended (default 5060). Only the whitelisted numbers/IPs can open door remotely using PIN Code when calling GSC3620.

Video & Audio Settings

The audio and videos settings allow users to configure the video / audio codecs, videos resolution, CMOS settings and audio related settings.





Video Settings

	Video Settings		
► LiveView ~	Stream 1		
System Settings	Preferred Video Codec	H264	1
• Account ^	Profile	Baseline	
Phone Settings ^			
🖴 Video & Audio Settings 🛛 ^	Resolution	1920*1080(16:9)	
Video Settings	Bit Rate(kbps)	2048	
OSD Settings	Frame Rate(fps)	30	
CMOS Settings	Bit Rate Control	CBR (Constant Bit Rate)	
Audio Settings	Image Quality	Very High ~	
Privacy Masks	I-frame Interval	30 ~	J
🜲 Alarm Settings 🛛 🗸 👻	Stream 2		
Email & FTP Settings	Preferred Video Codec	H264	}
▲ Maintenance ~	Profile	Baseline	-
① Status ^	Resolution	640*480(4:3) ~	·]
	Bit Rate(kbps)	1024 ~	-
	Frame Rate(fps)	30 ~	2
	Bit Rate Control	CBR (Constant Bit Rate)	-
	Image Quality	Normal	
	I-frame Interval	30 ~	-
	Save		_

Figure 24: Video Settings Page

Table 12: Video Settings

Stream 1		
Preferred Video Codec	Selects the videos codecs, the codecs supported are H.264 and MJPEG. Default	
	setting is H.264.	
B (1)	Selects the H.264 profile. Three profiles are available for H.264: Baseline, Main	
Profile	Profile and High Profile.	
Resolution	Specifies the resolution in pixels used at video image.	
Bit Rate(kbps)	Selects the video bit rate or bandwidth used.	
Frame Rate(fps)	Selects the maximum frame rate used (more data if big frame used).	
Bit Rate Control	Selects the constantly bit rate, or variable bit rate.	
Image Quality	Selects the image quality used when Variable Bit Rate used.	
I-frame Interval	Configures the I-frame interval (suggested 2~3 times of frame rate).	
Stream 2		





Preferred Video Codec	Selects the videos codecs, the codecs supported are H.264 and MJPEG. Default setting is H.264.
Profile	Selects the H.264 profile. Three profiles are available for H.264: Baseline, Main Profile and High Profile.
Resolution	Specifies the resolution in pixels used at video image.
Bit Rate(kbps)	Selects the video bit rate or bandwidth used.
Frame Rate(fps)	Selects the maximum frame rate used (more data if big frame used).
Bit Rate Control	Selects the constantly bit rate, or variable bit rate.
Image Quality	Selects the image quality used when Variable Bit Rate used.
I-frame Interval	Configures the I-frame interval (suggested 2~3 times of frame rate).

Notes:

- H.264 suggested if the GSC3620 needs to be viewed via Internet.
- For definition of Baseline, Main Profile and High profile of H.264 please refer to: H.264 Profiles
- If MJPEG is selected, reduce the frame rate to the minimal value to save bandwidth and get better image.
- Grandstream GSC3620 provides two video streams, users can use them with flexibility. For example, the high-resolution stream for local recording, another low or high resolution for SIP video phone call or remote smartphone monitoring application, or vice versa depending on application scenarios.
- Use below link to calculate bandwidth and storage before installation <u>https://www.grandstream.com/support/tools/bandwidth-storage-calc</u>

OSD Settings

OSD Settings (On Screen Display) allow the users to Display time stamp and text on the video screen.

LiveView	OSD Settings		
	Display Time		
System Settings	Display Text		
Account	OSD Date Format	MM-DD-YYYY	~
Phone Settings	OSD Text		
Video & Audio Settings	OSD Date/Time Position	Top Left	~
Video Settings	OSD Text Position	Top Left	
OSD Settings		lop Lon	, in the second

Figure 25: OSD Settings Page





Table 13: OSD Settings

	-
Display Time	When checked, time will be displayed inside the video image.
Display Text	When checked, inputted text on "OSD Test" will be displayed on the video image.
OSD Date Format	Select the date format from drop down list.
OSD Text	Input a text (to identify the GSC3620) it will be shown on the screen.
OSD Date/Time Position	Show the Date/Time position on the screen.
OSD Text Position	Show the text position on the screen.

CMOS Settings

This page configures the CMOS parameters for different scenarios.

	CMOS Settings		
LiveView	WDR (Wide Dynamic Range)	Enable	~
System Settings	✓ Power Frequency	60Hz	~
Account	Flip	NONE	~
Phone Settings	IR CUT Setting	Scheduled-Switch	~
Video & Audio Settings	Daytime Started at	06:00:00	~
Video Settings	Daytime Ended at	18:00:00	~
OSD Settings			
CMOS Settings			

Figure 26: CMOS Settings Page

Table 14: CMOS Settings

WDR (Wide Dynamic Range)	Enable or Disable the Wide Dynamic Range fature. Default "Enable".
Power Frequency	Select correct light condition for the scene monitored: 50Hz power frequency (Europe, China, etc.) or 60Hz power frequency (US, Japan, etc.).
Flip	Pull down to choose to flip video either vertically, horizontal or both
IR CUT Setting	 Manual: User can set manually The Daytime/Night Model to either Daytime or Night. Automatic: The Camera will automatically switch to either Daytime or Night depending on light condition. Scheduled-Switch: The user can configure Daytime schedule by editing both "Daytime Started at" and "Daytime Ended at" fields. Default is Automatic.





Audio Settings

1. 15	Audio Settings		
LiveView ·	Preferred Audio Codec	PCMU	~
System Settings ^	Audio Out Volume		
Account *	Audio In Volume		
Phone Settings *			
Video & Audio Settings ^			
Video Settings			
OSD Settings			
CMOS Settings			
Audio Settings			

This page allows users to configure the audio settings.

Figure 27: Audio Settings Page Table 15: Audio Settings

Preferred Audio Codec	Configures the audio codec.
	Two codecs are available: PCMU and PCMA.
Audio Out Volume	Adjusts the speaker volume connected.
Audio In Volume	Adjusts the Mic volume.

Privacy Masks

This page allows users to configure privacy masks up to 4 different regions by selecting different regions requiring privacy mask as displayed on the following figure. When privacy mask enabled, the video at related region will be masked by black color and no video displayed inside that mask.

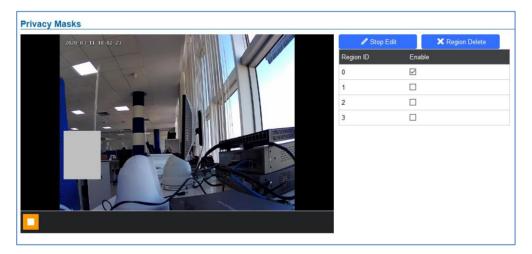


Figure 28: Privacy Masks Configuration Page

- Click "Start Edit" then long press and slide to identify a region
- Select a preconfigured region then Click "Region Delete" to remove it.





Alarm Settings

This page allows users to configure alarm schedule and alarm actions.

Alarm Events Config

This page allows users to configure GSC3620 events to trigger programmed actions within predefined schedule.

Alarm Events Config		
Motion Detection Mode Region Config	Default Alarm Mode	~
OMinimum Duration Required to Trigger Motion Detection (ms) OMinimum Time Interval to Identify Different Motion Detection Event (s)	500	✓✓
Select Alarm Schedule Select Alarm Action Profile	All Day	Edit Schedule Edit Profile
Alarm Config		
Enable Abnormal Reboot Alarm Select Abnormal Reboot Alarm Action Profile	profile1 profile1	✓ Edit Profile
	profile2 profile3 profile5 profile6 profile7 profile8 profile8	
	Motion Detection Motion Detection Mode Region Config Minimum Duration Required to Trigger Motion Detection (ms) Minimum Time Interval to Identify Different Motion Detection Event (s) Select Alarm Schedule Select Alarm Action Profile Alarm Config Enable Abnormal Reboot Alarm	Motion Detection Motion Detection Mode Default Alarm Mode Region Config 0 Minimum Duration Required to Trigger Motion Detection (ms) 500 Minimum Time Interval to Identify Different Motion Detection Event (s) 3 Select Alarm Schedule All Day Select Alarm Action Profile profile1 Alarm Config Image: Config Enable Abnormal Reboot Alarm Image: Confied profile1 Select Abnormal Reboot Alarm Action Profile profile1 profile3 profile4 profile4 profile5 profile5 profile6 profile6 profile7

Figure 29: Alarm Events Config page

Table 16: Alarm Events Config Settings

Motion Detection Mode	•	Default Alarm Mode: Single zone independent alarm
	•	Sequence Alarm Mode: Set the sequence of multi-zone alarms.
		Alarm will trigger if matched the configured zone sequence,
		otherwise alarm will not trigger.
	•	Multi-zone Combined Alarm Mode: Alarm will trigger when
		number of combined alarming zones reaches the configured
		amount, otherwise alarm will not trigger.
	•	Zone Trigger Ratio Alarm Mode: Configure the ratio of single
		small squares compared to the whole alarm zone, alarm will trigger
		when the ratio reached.





Maximum Time to Identify a Valid Multi-	If all preset zones have triggered an alarm within the configured time (in Seconds), this will be considered as a valid alarm/event, otherwise it will be
Zone Alarm Detection	an invalid alarm.
Minimum Number of	If set multi-zone alarm, when the number of detection zones where alarm
Alarming Zones for a	triggered reaches the configured number, it is considered a valid
Valid Multi-Zone Alarm	alarm/event, otherwise it will be an invalid alarm. For example, the value is
Detection	set 3 with total of 4 zones, when zones with triggered alarm get to 3, a valid alarm/event will be reported.
Minimum Number of	The threshold is the ratio of single small squares compared to the whole
Blocks Per Region to	alarm zone, alarm will trigger when the ratio reached.
Trigger Detection	
Minimum Duration	The time when an object moving in the preset zone is longer than the
Required to Trigger	configured duration, this is considered a valid alarm/event, otherwise it is
Motion Detection (ms)	invalid alarm/event.
Minimum Time Interval	This minimum time interval is used to identify different motion detection
to Identify Different	events. If two consecutive motion detection alarm events occurred within
Motion Detection Event	this time interval, they will be considered as the same motion event.
(s)	Otherwise they will be considered as two different motion events.

Motion Detection

Users can select a specific region to trigger the alarm using motion detection.

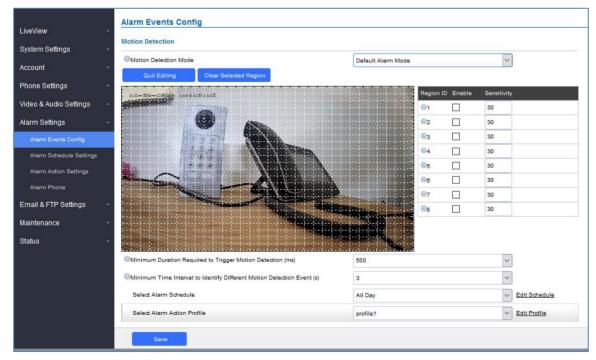


Figure 30: Region Config





Table 17: Motion Detection

Region Config	Configures the motion detection region. First click to access the Region Config menu and second click to quit.
Clear Selected Region	Selects a zone on the screen then click on "Clear" to delete the region.
Sensitivity	Specifies the region sensitivity (value between 0-100%).
Select Alarm Schedule	Selects the alarm schedule.
Select Alarm Action Profile	Selects the programmed Alarm Action profile.

Alarm Config

This page specifies the configuration of Abnormal Reboot Alarm Action.

Enable Abnormal	When checked, the IPC will sent an email if there is a power outage, which
Reboot Alarm	could affect the Auto-Focus as the AF might be affected after this power
	failure causing all the later on recording to become unclear. Thus the email
	will help the administrator to login and take corrective actions.
Select Abnormal	If all preset zones have triggered an alarm within the configured time (in
Reboot Alarm Action	Seconds), this will be considered as a valid alarm/event, otherwise it will be
Profile	an invalid alarm.

Alarm Schedule Settings

This page specifies the configuration of Alarm Schedule.

Note: Schedule must be configured first to allow the alarm to take the related action.

No.					S	chee	lule	e Na	ime									Detail													Edit
1		schedule1									\odot											Ø									
		0	1	2	3	4	5	6	7	8	9	10	11	12	1	31	4 '	15	16	17	18	19	20) 2	1 :	22	23	0			
	Sun																														
	Mon																														
	Tue																														
	Wed																														
	Thu											_								_		_									
	Fri	_								_		_								_		_						-			
	Sat																														
2						sc	hed	ule2	2														C)							Ø
3						sc	hed	ule3															C)							Ø
4						sc	hed	ule4															C)							Ø
5						sc	hed	ule5	;										\odot											Ø	
6		schedule6									\odot											\oslash									
7	schedule7								\odot											Ø											
8		schedule8									\odot											Ø									
9							hod	ule9															C								Ø







GSC3620 supports up to 10 alarm schedules to be configured, with time span specified by users. Users

can View the schedule details by clicking \odot or Edit the alarm schedule by clicking \oslash button.

Usually the 24 hours' span is $00:00 \sim 23:59$, which is 24 hours' format. Note that it is possible to copy the configuration to different date during the schedule programming using the banner at the bottom.

Modify Schedule			×
Schedule Name	schedule1		
Sun	Period1	00 🗸 : 00 🗸 - 23 🗸 : 59 🗸	
Mon	Period2	00 - : 00 - 00 : 00 -	
Tue	Period3		
Wed Thu	Period4	00 - : 00 - 00 : 00 -	
Fri	Period5	00 - : 00 - 00 : 00 -	
Sat	Period6	00 - : 00 - 00 : 00 -	
	Period7	00 - : 00 - 00 - : 00 -	
	Period8		
Copy 🖌 Sun 🗌 Mon	Tue Wee	d 🗌 Thu 🔄 Fri 📄 Sat 📄 Select All	
	Save	Cancel	

Figure 32: Edit Schedule

Alarm Action Settings

This page specifies the configuration of Profile used by the Alarm Actions. A Profile is required before the Alarm Action can take effect.





Alarm Action Settings				
No.	Alarm Action Profile Name		Detail	Edit
1	profile 1		$\overline{\mathbf{O}}$	\oslash
	Upload to Alarm Center Send Email	Audio Alarm to SIP Phone Upload Snapshot		
2	profile2		\odot	\oslash
3	profile3		\odot	\oslash
4	profile4		\odot	\oslash
5	profile5		\odot	\oslash
6	profile6		\odot	\oslash
7	profile7		\odot	\oslash
8	profile8		\odot	\oslash
9	profile9		\odot	\oslash
10	profile10		\odot	\oslash

Figure 33: Alarm Action

User can edit the alarm action by clicking \bigotimes button, the following window will popup.

Modify Alarm Action Profile			×
Alarm Action Profile Name	profile1		
Upload to Alarm Center		Audio Alarm to SIP Phone	
Send Email		Upload Snapshot	
	Save	Cancel	

Figure 34: Edit Alarm Action

Table 18: Alarm Actions

Upload to Alarm Center	If selected, the GSurf will popup alarm window and sound alarm in the computer speaker.
Audio Alarm to SIP Phone	If selected, GSC3620 will call pre-configured (video or audio) phone and will play sound alarm.
Send Email	If selected, an email with snapshot will be sent to the pre-configured email destination.
Upload Snapshot	If selected, snapshots at the moment where the event is triggered will be sent to preconfigured destination (e.g.: FTP or email).





Alarm Phone List

This page allows users to configure the Alarm Phone List, which are phone numbers or extensions list that the GSC3620 will call out when event is trigged.

LiveView	Alarm Phone List		
System Settings	Alarm Call Out Account	Auto	~
	Alarm Phone List 1		د
P Account	Alarm Phone List 2		
Phone Settings			
🖴 Video & Audio Settings	Alarm Phone List 3		و
	Alarm Phone List 4		٩.
Alarm Settings	Alarm Phone List 5		و
Alarm Events Config	Alarm Phone List 6		e
Alarm Schedule Settings			
Alarm Action Settings	Alarm Phone List 7		٩
Alarm Phone List	Alarm Phone List 8		٩.
	Alarm Phone List 9		¢.
Email & FTP Settings	Alarm Phone List 10		
A Maintenance	v vium i none List to		•

Figure 35: Alarm Phone List

Table 19: Alarm Phone List

Alarm Call Out Account	Select the SIP Account to be used by the GSC3620 when alarm out is triggered.
Alarm Phone List 1-10	Add or delete number from the phone alarm list. (When IP address is used then the port needs to be appended, example: 192.168.1.12:5060).

Once the event is triggered the GSC3620 will call the first number, once time out is reached and no answer is returned from the first number, the GSC3620 will try the next number on the list and so on. Once the remote phone answers the call, an alarm will be played to notify users that an event is triggered.

Email & FTP Settings

This page contains Email and FTP Settings.

Email Settings

This page allows users to configure email client to send out an email when the alarm is trigged.





	SMTP	
► LiveView *	SMTP Server	
System Settings	SMTP Server Port	25
P Account ·		20
Phone Settings	From E-Mail Address	
🖧 Video & Audio Settings 🛛 ^	Sender Email ID	
Alarm Settings	Sender Email Password	
 Email & FTP Settings 	Alarm-To Email Address 1	
Email Settings	Alarm-To Email Address 2	
	SSL	

Figure 36: Email Settings - SMTP Page

Table 20: Email Settings - SMTP

SMTP Server	Configures the SMTP Email Server IP or Domain Name.
SMTP Server Port	Specifies the Port number used by server to send email.
From E-mail address	Specifies email address of alarm email sending from, usually client email ID.
Sender Email ID	Specifies sender's User ID or account ID in the email system used.
Sender Email Password	Specifies sender's password of the email account.
Alarm-To Email Address 1	Specifies the 1 st email address to receive the alarm email.
Alarm-To Email Address 2	Specifies the 2 nd email address to receive the alarm email.
SSL	Check if the SMTP email server requires SSL.

Notes:

- Click "Save" to save the email configuration information.
- Click "Email Test" after configuration, if settings are correct, a test email will send out and "E-mail test

successfully" message on the top page will appear.





FTP & Center Storage

This page allows users to configure the FTP Settings in order to upload capture images.

Table 21: Picture Storage Settings		
FTP Server	Configures the IP address of the FTP server when selected to upload images to.	
FTP Server Port	Specifies the FTP address port.	
FTP Username	Specifies the FTP server account name.	
FTP Password	Specifies the FTP server password.	
FTP Path	Specifies the storage path.	
FTP Test	Click to test the connection with FTP server.	

LiveView	Snapshot Storage Settings		
	FTP Server		
System Settings	FTP Server Port	21	
Account	FTP User Name		
Phone Settings	FTP Password		
Video & Audio Settings	FTP Path		
Alarm Settings	*	FTP Test	
Email & FTP Settings	*		
Email Settings			
FTP			
Maintenance	*		
Status	v		



Notes:

- If the connection to the FTP server is successful, a ".txt" file containing a success message will be uploaded to the FTP server. And the following message will pop up on the Web GUI FTP test successfully.
- Central Storage will store screenshots locally.

Maintenance Settings

This page shows the GSC3620 Maintenance parameters.

Upgrade

This page contains the upgrade and provisioning parameters of the GSC3620.



GRANDSTREAM

	Upgrade	
LiveView ~	Firmware	
🕈 System Settings 🛛 🗸	Upgrade Via	нттр
🕫 Account 🗸 🗸	Firmware Server Path	fm.grandstream.com/gs
🕫 Phone Settings 🛛 🗸	HTTP/HTTPS User Name	
🖶 Video & Audio Settings 🛛 🗠	HTTP/HTTPS Password	
👃 Alarm Settings 🛛 🗠	Firmware File Prefix	
🐟 Email & FTP Settings 🛛 🗠	Firmware File Postfix	
🔧 Maintenance 💦 🔹	Config	
Upgrade	Upgrade Via	HTTPS
Reboot & Reset	Config Server Path	fm.grandstream.com/gs
Debug Log	HTTP/HTTPS User Name	
Data Maintenance	HTTP/HTTPS Password	
Event Notification	Config File Prefix	
Certificates	Config File Postfix	
 Status The second s	XML Config File Password	
	Validate Server Certificates	
		_
	Enable DHCP Option 66 Override Server	
	Zero Config	
	Enable DHCP Option 120 Override SIP Server	
	Automatic Upgrade	
		Yes, check for every 10080 minute(s)
		Yes, check for every day
		Yes, check for every week
	Randomized Automatic Upgrade	
	Hour of the Day (0-23)	Start 1 End 23
	Day of the Week (0-8)	1

Figure 38: Upgrade Page





Table 22: Upgrade

Firmware			
T IIIIwarc			
Upgrade Via	Selects the upgrade method		
	(TFTP, HTTP, or HTTPS).		
Firmware Server	Configures the IP address or the FQDN of the upgrade server.		
Path			
HTTP/HTTPS	The username for the HTTP/HTTPS server.		
Username			
HTTP/HTTPS	The password for the HTTP/HTTPS server.		
Password			
	Enables your ITSP to lock configuration updates. If configured, only the		
Firmware File Prefix	firmware file with the matching encrypted prefix will be downloaded and flashed		
	into the phone.		
	Enables your ITSP to lock firmware updates. If configured, only the firmware		
Firmware File	with the matching encrypted postfix will be downloaded and flashed into the		
Postfix	phone.		
Config			
Upgrade via	Selects the upgrade method (TFTP, HTTP, and HTTPS).		
Config Server Path	Configures the IP address or the FQDN of the configuration server.		
HTTP/HTTPS	The username for the HTTP/HTTPS server.		
Username			
HTTP/HTTPS	The password for the HTTP/HTTPS server.		
Password			
	Enables your ITSP to lock configuration updates. If configured, only the		
Config File Prefix	configuration file with the matching encrypted prefix will be downloaded and		
	flashed into the phone.		
	Enables your ITSP to lock configuration updates. If configured, only the		
Config File Postfix	configuration file with the matching encrypted postfix will be downloaded and		
	flashed into the phone.		
XML Config File	Specifies the password for the configuration file.		
Password			
Validate Server	Enable this option in order to validate certificate with trusted ones during TLS		
Certificate	connection.		
Enable DHCP			
Option 66 Override	Activates DHCP option 66 to override upgrade/config servers.		
Server			





Zero Config	Enables Zero Config feature for auto provisioning.
Enable DHCP Option 120 Override SIP Server	Enables DHCP Option 120 from local server to override the SIP Server on the phone. The default setting is enabled.
Automatic Upgrade	Enables automatic upgrade and provisioning. Set schedule for provisioning for either every X minute, every day, or every week. Default is No.
Randomized Automatic Upgrade	Enable and define the start/End hours of the day and days of the week where the GSC3620 will randomly checking for update.

Reboot & Reset

This page allows user to reboot and reset the GSC3620.

Reboot & Reset	
Reboot	Reboot
Reset	Reset

Figure 39: Reset & Reboot Page

Table 23: Reset & Reboot		
Reboot	When clicked, the GSC3620 will restart (soft reboot).	
Reset	Restore Factory Default Settings	

Debug Log

This page allows user to configure SYSLOG to collect information to help troubleshooting issues with GSC3620.

Debug Log				
Debug Log Protocol	UDP	~		
Debug Log Server				
Debug Log Level	None	~		

Figure 40: Debug Log Page

- Users can choose to set Debug Log Protocol to UDP or SSL/TLS.
- Five levels of Debugging are available, None, Debug, Info, Warning, Error.





• Once the Syslog Server and the level entered, press "**Save**" and then Reboot the device to apply the settings.

Data Maintenance

This page allows users to manage the GSC3620 configuration file by importing/exporting configuration files.

Data Maintenance		
Data Type	System Config Data(Password not included)	🔹 🖾 Export
Import	s Import کے	



Notes:

- Click on the Click on the Click on the Click on <a href="https://www.exam
- Users can either select to include all the passwords (SIP, FTP, Remotes access...) on the configuration files exported or not including the passwords as displayed on the previous figure.

Event Notification

This page allows users to configure the event notification details that will be used by GSC3620 to communicate to an HTTP server to log the events. When the feature is enabled and configured, all the event logs will be uploaded to server:

Event Notification	
Enable Event Notification	
Via Type	HTTP
HTTP/HTTPS Server	
HTTP/HTTPS Server Username	
HTTP/HTTPS Server Password	
URL Template	
Template Variables	\${MAC} : MAC Address \${TYPE} : Event Type \${WARNING_MSG} : Event Message \${DATE} : Date & Time
	\${SIPNUM}: Sip Number
Template Samples	1: {'mac''.''\${MAC}'','content''.''\${WARNING_MSG}''] 2 : <body><mac>\${MAC}</mac><content>\${WARNING_MSG}</content></body> 3 : mac=\${MAC}&content=\${WARNING_MSG}

Figure 42: Log Manager Page





Enable Event Notification	Enables Event Notification feature		
Via Type	Choose which protocol will be used to connect to the logs server (HTTP or HTTPs).		
HTTP/HTTPS Server	Enter the IP address of domain name for the logs server.		
HTTP Server Username	Configure the username of your HTTP(s) server		
HTTP Server Password	Configure the password of your HTTP(s) server		
URL Template	Specify the template for the event log messages that will be sent to the server, users can use the following variables to customize the message: • \${MAC}: MAC Address • \${MAC}: Event Type • \${WARNING_MSG}: Event Message • \${DATE}: Date & Time • \${SIPNUM}: SIP Number		
	Test		

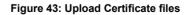
Table 24 : Log Manager Settings

User can test the configuration by clicking on
 button at the bottom

Certificates

This page allows users to upload up to 6 Trusted CA certificate files which will be trusted by the GSC3620 during SSL exchange. Also, users are allowed to configure the device with custom certificate signed by custom CA certificate under the Custom Certificate section.

CA Certific	ates			
No.	Issued By	Expiration		
1			📭 Upload	💼 Delete
2			🖪 Upload	💼 Delete
3			Fi Upload	💼 Delete
4			🖬 Upload	💼 Delete
5			📭 Upload	💼 Delete
6			🕞 Upload	💼 Delete







In order to upload your Trusted CA certificate, you may proceed as follows:

- Click on button to upload a file and some related information to the uploaded file will be displayed, such as "**Issued by**" and "**Expiration date**".

No.	Issued By	Expiration		
1	-	2018-07-17 15:46:03	📑 Upload	💼 Delete
2			🖬 Upload	💼 Delete

Users could press
 Delete
 to delete one of the files.

In order to upload your Custom certificate, you may proceed as follows:

- Click on button to upload a file and some related information to the uploaded file will be displayed, such as **"Issued by"** and **"Expiration date"**.

Custom Certificate			
No.	Issued By	Expiration	
1			🖿 Upload 📋 Delete

Figure 45: Custom certificate

Status

This page displays GSC3620 system and network information.

Account Status

This page displays of configured accounts' SIP user ID, SIP server as well as the SIP Registration status, from Account 1 to Account 4.

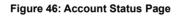
Notes:

- When the SIP account is registered, the SIP Registration status display will be Online
- When SIP account is unregistered, the SIP Registration status display will be Offline





LiveView	Ŷ	Account Status			
	Ť	Account	SIP User ID	SIP Server	SIP Registration Status
System Settings	ř	Account 1			Offline
Account	~	Account			Chine
Phone Settings	~	Account 2			Offline
Video & Audio Settings	~	Account 3			Offline
Alarm Settings	~	Account 4			Offline
Email & FTP Settings	~				
Maintenance	~				
Status	^				
Account Status					
System Info					



System Info

This page displays information such as the product model, the hardware version, firmware...

S GSC3620		
	System Info	
LiveView ~	Product Model	GSC3620
System Settings ·	Hardware Version	V1.0A
Account ~	Part Number	9670007410A
Phone Settings ·	Serial Number	21JD61GL902EE82B
Video & Audio Settings ·	Boot Version	1.0.5.3
Alarm Settings	Core Version	1.0.5.3
Email & FTP Settings	Base Version	1.0.5.3
Maintenance ~	Prog Version	1.0.5.3
Status ^	System Uptime	6 minutes
Account Status		
System Info	Firmware Status	Press check button and reload page to check firmware availability.
Network Info		Check
GNU GPL License		

Figure 47: System Info Page





Table 25: System Info

Product Model	Displays the Product Model.	
Hardware Version	Displays the Hardware Version.	
Part Number	Displays the Part Number.	
Boot Version	Displays the Boot Version.	
Core Version	Displays the Core Version.	
Base Version	Displays the Base Version.	
Prog Version	Displays the Prog Version.	
System Up Time	Displays the time since the first boot of the GSC3620.	
Firmware Status	Click the Check button to check whether the firmware in the firmware server has an updated version, if so, update immediately.	

Network Info

This page displays the network system information of GSC3620.

Network Info	
MAC Address	C0:74:AD:16:2F:53
IP Address Mode	DHCP
IP Address	192.168.0.160
Subnet Mask	255.255.0.0
Gateway	0.0.0.0
DNS Server 1	0.0.0.0
DNS Server 2	0.0.0.0

Figure 48: Network Info Page

Table 26: Network Info	
MAC Address	Displays the GSC MAC Address.
IP Address Mode	Displays the IP address mode used.
IP Address	Displays the IP address of the GSC3620.
Subnet Mask	Displays the Subnet Mask used.
Gateway	Displays the GSC3620 Gateway.
DNS Server 1	Displays the Preferred DNS Server.
DNS Server 2	Displays the secondary DNS Server.





EXPERIENCING THE GSC3620

Please visit our website: <u>https://www.grandstream.com</u> to receive the most up- to-date updates on firmware releases, additional features, FAQs, documentation and news on new products.

We encourage you to browse our <u>product related documentation</u>, <u>FAQs</u> and <u>User and Developer Forum</u> for answers to your general questions. If you have purchased our products through a Grandstream Certified Partner or Reseller, please contact them directly for immediate support.

Our technical support staff is trained and ready to answer all of your questions. Contact a technical support member or <u>submit a trouble ticket online</u> to receive in-depth support.

