



Grandstream Networks, Inc.

GXV3615WP_HD



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WELCOME

Thank you for purchasing Grandstream's GXV3615WP_HD cube high definition IP camera, an innovative powerful next generation network camera. It features cutting edge H.264 real-time video compression with excellent image clarity (720p) and color fidelity, industry leading SIP/VoIP for 2-way audio and video streaming to mobile phones and video phones, integrated PoE, integrated Wi-Fi (b/g/n), integrated microphone and speaker, microSD for local alarm storage and emergence DVR, large pre-/post-event recording buffer, and advanced security protection using strong encryption. The GXV3615WP_HD can be managed with GSurf, Grandstream's FREE VMS (video management systems) software that controls up to 36 cameras simultaneously; or record video using GSNVR, Grandstream's FREE network and PC based DVR (digital video recorder) software. It is fully compliant with ONVIF standard and offers flexible HTTP API and an SDK for advanced integration.

The affordable, feature rich GXV3615WP_HD cube high definition IP camera is a new addition to the popular GXV3XXX series IP surveillance product family. It ensures ease of use, integration and deployment with a multilingual graphical user interface, provides powerful solution to applications for small to medium sized business, storage facilities and residential customers looking to safeguard their valuables.

This manual will help you to learn how to operate and manage your GXV3615WP_HD high definition cube IP camera and make the best use of its rich features.

Safety Compliances

These instructions are intended to assist users with the operation of the GXV3615WP_HD and to instruct on how to avoid dangerous situations or damage to the device.

Warnings: Serious injury or death may be caused if any of the warnings below are neglected.
Cautions: Injury or damage to the equipment may occur if any of the following caution messages are neglected.



Warnings Follow these safeguards to prevent serious injury or death.



Cautions Follow these precautions to prevent potential injury or material damage.



Warnings:

Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with DC 12V according to the IEC60950-1 standard. Please refer to the technical specifications for more details.

Do not use a third-party power adapter or power cord

When the device is installed on the wall or ceiling, make sure that it is firmly attached.



Notice,

Make sure that the power supply voltage is correct before using the camera.

Do not drop the device or expose it to physical shock.

Do not expose the device to temperatures outside the range of -10°C to +60°C when the device is in operation.

Do not expose the device to damp/wet conditions or high electromagnetism radiation.

To avoid heat accumulation, make sure that your operating environment has proper ventilation.

Do not attempt to open, disassemble, or modify the device

A few parts (e.g. electrolytic capacitor) of the equipment shall be replaced regularly according to their average life time. The average life time varies from the differences between operating environments and usage history. Regular maintenance checks are recommended for all users. Please contact your dealer for more details.

Warranty

If you purchased your GXV3615WP_HD from a reseller, please contact the company where you purchased your device for replacement, repair or refund.

If you purchased the product directly from Grandstream, please contact your Grandstream Sales and Service Representative for a RMA (Return Materials Authorization) number before you return the product. Grandstream reserves the right to remedy warranty policy without prior notification.

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 User Manual, could void your manufacturer warranty. Please do not use a different power adaptor with the GXV3615WP_HD as it may cause damage to the products and void the manufacturer warranty.

- This document is subject to change without notice. The latest electronic version of this user manual is available for download at:
http://www.grandstream.com/products/GXV3615WP_HD_UserManual_EN.pdf

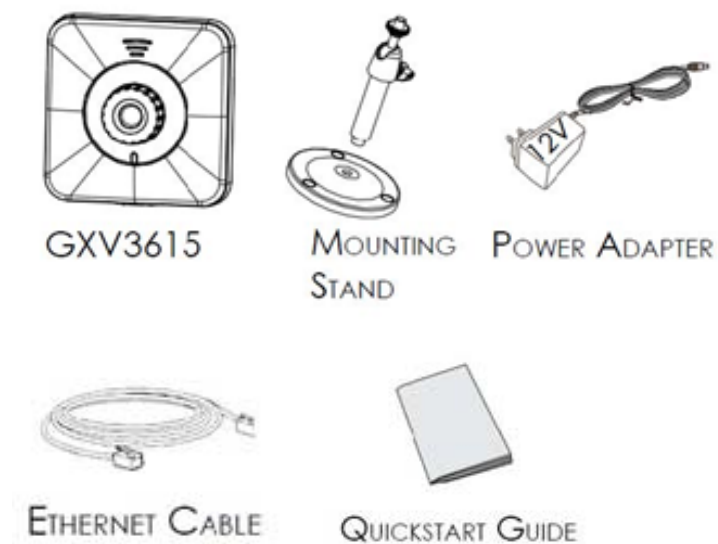
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CONNECT YOUR GXV3615WP_HD

Equipment Package Contents

The GXV3615WP_HD package contains:

- GXV3615WP_HD IP Camera
- 12V DC Universal Power Adaptor
- Ethernet Cable
- Mount Stand
- Quick Installation Guide



Connecting the GXV3615WP_HD

Using the Power Adapter as power supply

- Connect the RJ-45 Ethernet cable to the NETWORK port of the GXV3615WP_HD
- Connect the other end of the RJ-45 cable to your network (switch or router or PC)
- Connect the power supply to the DC 12V power jack on the back of the GXV3615WP_HD

Using PoE as power supply

- Connect the RJ-45 Ethernet cable to the NETWORK port of GXV3615WP_HD
- Connect the other end of the RJ-45 cable to your PoE switch.

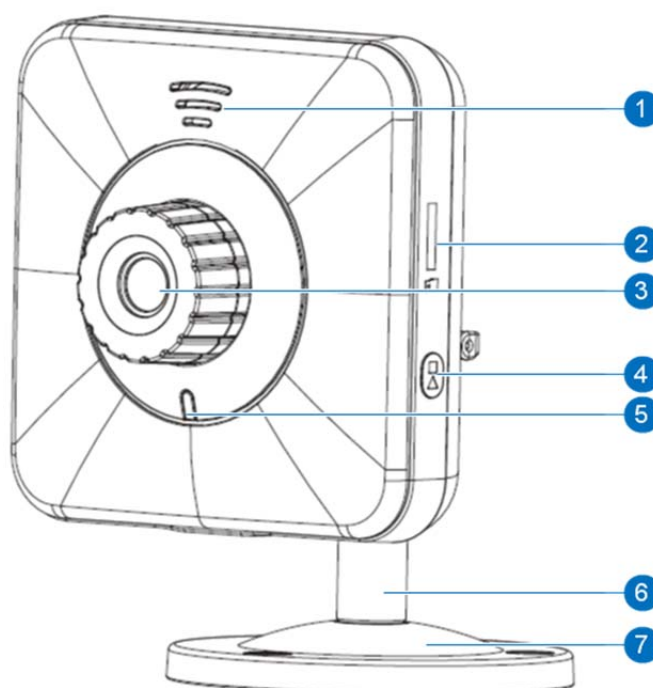
NOTE:

If you are going to connect the device to a hub/switch/router, please use a straight-through cable. A cross over cable should be used if you are going to connect the device directly to a PC. Wi-Fi mode has to be initially configured via wired mode before switched to run in wireless mode.

PRODUCT OVERVIEW

GXV3615WP_HD Front and Back Panel

Front Panel:



- | | |
|--------------------------------|--|
| 1. Speaker | GXV3615WP_HD built-in speaker |
| 2. microSD card slot | microSD card slot, for local record storage |
| 3. Lens | 2 Million pixel CMOS sensor with Lens |
| 4. Record Button | Local record operation button (*) |
| 5. LED Status Indicator | LED indicate device operation status (**) |
| 6. Mounting stand | Stand connect camera and mounting base |
| 7. Mounting Base | Mounting base for desktop or wall installation |

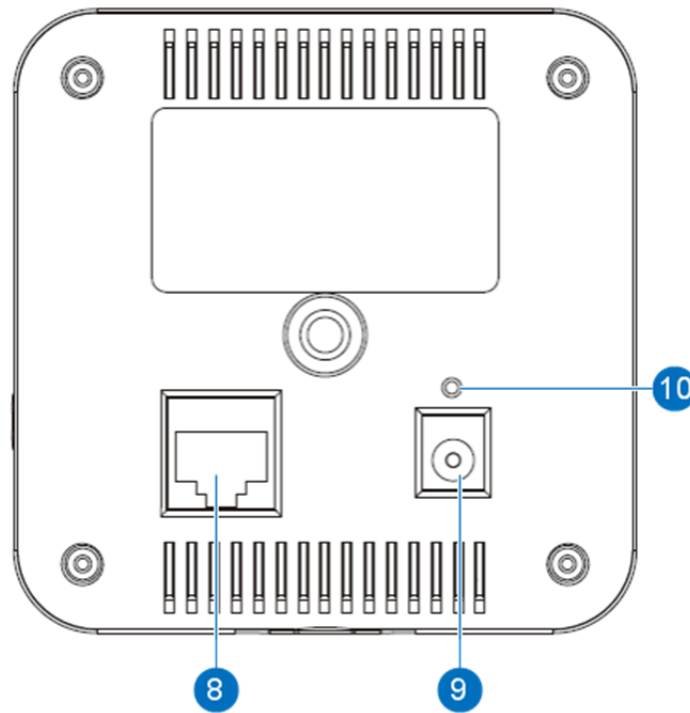
(**) **LED Indication Status**

- | | |
|--------------------|---|
| Red | Power connected but IP address not obtained |
| Solid Green | IP address obtained, device in normal operation |
| Blink Green | Device is transmitting data |

NOTE:

- *Green light status can be disabled via web configuration page*

Back Panel:

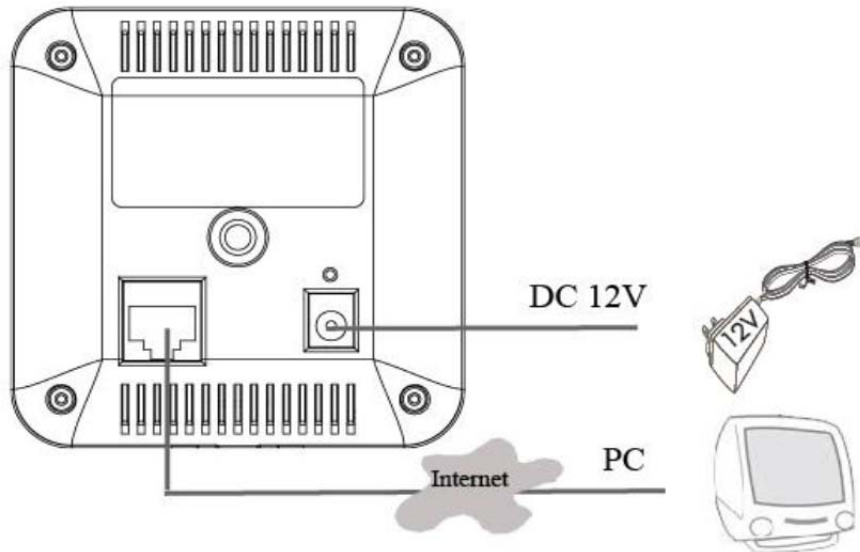


- | | |
|----------------------------|---|
| 8. Network Socket | 10/100 RJ-45 network port for connecting to Ethernet |
| 9. DC 12V Jack | 12V DC power jack, UL Certified. |
| 10. RESET Pinhole | Press and hold the Reset button for 15 seconds to Factory Reset the unit |
| 11. Mounting Socket | Sockets for mounting GXV3615WP_HD |

(*) **Record Button Operation when Pressed:**

- If no record task configured, the camera will start recording. Both the **Red** and **Green** LED light will flash simultaneously 5 times with interval of 0.5 second, then back to previous state.
- If the camera is recording via manual recording mode, then it will STOP recording. **Red** LED will flash 5 times with interval of 0.5 second, Green LED will turn OFF, then back to the previous state.
- If camera configured with scheduled recording, camera will NOT do any operation. Both **Red** and **Green** LED will light up for about 3 seconds, then back to the previous state.

GXV3615WP_HD Sample Connection Diagram



This diagram shows how the GXV3615WP_HD connected to Internet.

Wi-Fi can be used to connect GXV3615WP_HD to Internet either, but user has to use wired connection to configure the Wi-Fi parameter first before it use Wi-Fi connection.

GXV3615WP_HD Specifications

Table 1: GXV3615WP_HD Technical Specifications

Video Compression	H.264, Motion JPEG , JPEG
Image Sensor	1/3.2", 2-Megapixel CMOS, 1600H x 1200V pixels resolution, excellent low noise levels.
Lens Type	1/3", M12 Megapixel, f=4.2mm, F1.8
Day & Night	No.
Minimum Illumination	0.5Lux
Responsivity	1.0V/lux-sec (550nm)
Video Resolution	1600x1200, 1280x720, 1024x768, 800x592, 800x480, 640x480, 640x368, 480x368, 480x272, 320x240, 320x176, 256x192, 256x144, 160x112, ePTZ (320x240)
Pixel Dynamic Range	71dB, with SNR max. 41dB
Max Frame Rate in Max Resolution	H.264: 15fps@1600x1200; 25fps@1280x960; 30fps@1280x720; 30fps@800x480 MJPEG: 10fps@1024x768; 20fps@800x480
Video Bit Rate	32 Kbps ~ 2 Mbps (adjustable)
Audio Input	Built-in microphone
Audio Output	Built-in speaker
Audio Compression	G.711 U/A, AAC
Embedded Analytics	Motion detection (up to 16 regions)
Video Management System	ONVIF compliant, HTTP API for advanced integration
Pre-/post-alarm Buffer	24MB
Pre-/post-alarm triggered record	Pre-30s and post-60s recording@2Mbps; Pre-50s and post-100s recording@1Mbps
Snapshots	Triggered upon events, send via email/FTP, or stored in local micro-SDHC card (not provided)
Multi-streaming-rate Preview & Recording	Yes
Automatic Features	Auto Exposure, Auto White Balance
Image Flip	Yes (180° degree vertical)
ePTZ	Yes (at 320x240 resolution)
Security	Login password, access privilege management
Network Port	10M/100M auto-sensing, RJ45
Network Protocol	TCP/UDP/IP, RTP, RTSP, DHCP, DDNS, HTTP/HTTPS, SMTP, FTP, NTP, PPPoE
Power over Ethernet (PoE)	IEEE 802.3af, class 2
Wi-Fi (802.11b/g/n)	Internal antenna
SIP/VoIP Support	Yes, Voice & Video-over-IP
Dimensions (W x H x L)	90mm x 90mm x 45mm
Weight	0.133kg (base only) Stand: 0.121kg; Package weight: 0.568kg
Temperature / Humidity	0°C – 45°C (32°F–113°F) Humidity 10–90% RH (non-condensing)
Power Adapter	Output: 12VDC/0.5A; Input:100–240VAC, 50–60Hz
Regulatory Compliance	FCC Part 15B; 15.247 MPE; EN 55022 EN55024; EN300328; EN301489; EN62311; EN60950-1, AN/NZS CISPR 22/24; AS/NZS 4268, 4771; RoHS; UL 60950 (power adapter)

INSTALLATION GUIDE

Minimum Recommended Computer System Requirement

To install GXV3615WP_HD, you have to have a computer, PC recommend. The minimum recommended PC system requirement listed below:

- Windows 2000, XP, Windows Vista, Windows 7 (32bit or 64bit)
- CPU: Intel Pentium 4 or higher, 2 GHz
- RAM: 1 GB (4 GB recommended for larger systems)
- Support for DirectX 8.0 and above.

Configure the GXV3615WP_HD via Web Browser

The GXV3615WP_HD has embedded Web server to respond to HTTP GET/POST requests. Embedded HTML pages allow user to configure the IP camera through Microsoft Internet Explorer (7.0 or above) or Firefox (plug-in from Grandstream required).

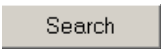
- Download the GS_Search tool from Grandstream website:
http://www.grandstream.com/products/tools/surveillance/gs_search.zip
- Download Firefox Plug-in from Grandstream website:
http://www.grandstream.com/products/tools/surveillance/FireFox_Plugin_1.0.0.20_en.exe

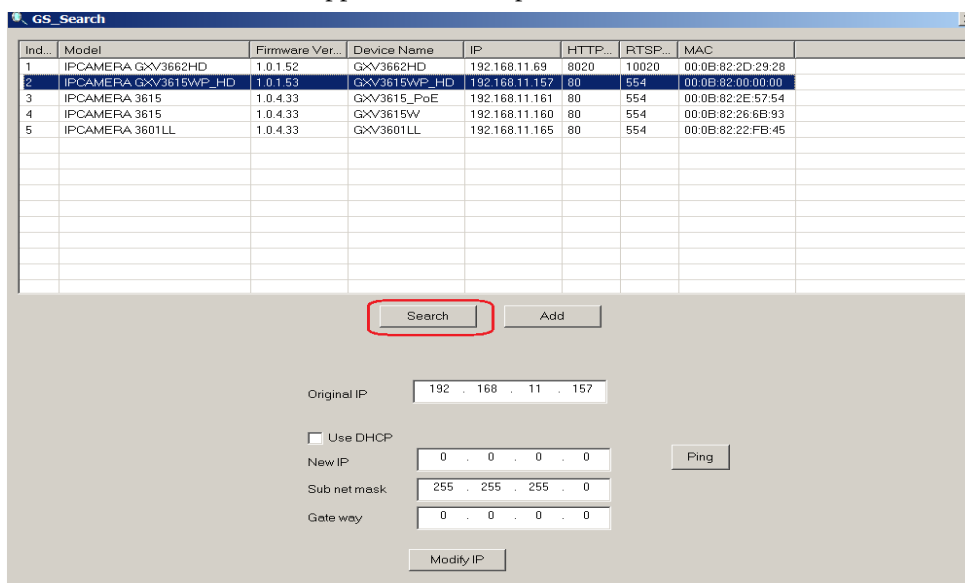
NOTE:

- *Google Chrome and Apple Safari support is pending.*
- *Please temporarily disable Antivirus or Internet Security Software when download and install the Grandstream Firefox plug-in for video or “GSViewerX.cab” for Microsoft Internet Explorer.*

Connect the Camera to network with DHCP server (Recommended)

The GXV3615WP_HD by default enabled as DHCP client, it will automatically get IP address from the network with DHCP server running. User can know the IP address assigned to the camera from DHCP server log or using Grandstream free GS_Search tool.

1. Download the GS_Search tool from Grandstream website:
http://www.grandstream.com/products/tools/surveillance/gs_search.zip
2. Run the Grandstream GS_Search tool by double click the unzipped "GS_Search.exe".
3. Click on  button to begin device detection
4. The detected devices will appear in the Output field like below



5. Double click the column of the detected camera, the browser will automatically open and link to the device IP and the web configuration page.
6. The browser will ask for plug-in or ActiveX if not installed, otherwise it will get to Home page and start to show the video captured by the camera (by default the camera enabled anonymous access)
7. Click "Configuration", the browser will ask credentials to authorize configuration.
8. Enter the administrator user name and password to access the Web Configuration Interface, the default user name and password are both set to **admin**.
9. In step 6, IE will indicate that "This website wants to install the following add-on: GSViewerX.cab from Grandstream Networks Inc.", allow the installation.
10. Firefox user need to download and install the plug-in to see the video, the plug-in for Firefox is here:
http://www.grandstream.com/products/tools/surveillance/FireFox_Plugin_1.0.0.20_en.exe

NOTE:

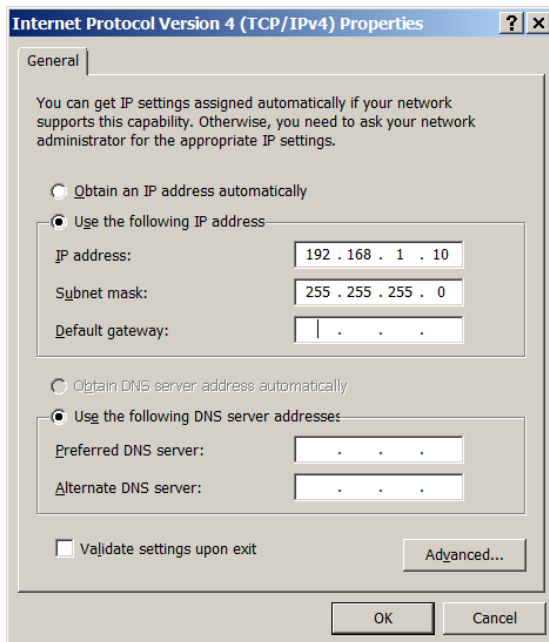
- Please temporarily disable Antivirus or Internet Security Software when download and install the Grandstream Firefox plug-in for video or "GSViewerX.cab" for Microsoft Internet Explorer.

Connect to the Camera using Static IP

If no DHCP server in the network, or the camera does not get IP from DHCP server, user can connect the camera to a computer via cross-over cable, using static IP to configure the camera.

The default IP, if no DHCP server; or DHCP offer time out (3 minutes), is **192.168.1.168**

1. Connect the computer via cross-over Ethernet cable directly to the IP camera GXV3615WP_HD
2. Configure the computer using Static IP: 192.168.1.XXX (1<XXX<255, but NOT 168) and configure the “Subnet mask” to “255.255.255.0”. Leave the “Default Gateway” to “Blank” like below:



3. Power on the GXV3615WP_HD.
4. Start the IE or Firefox browser when the network connection is up.
5. Enter 192.168.1.168 in the address bar of the browser.
6. The browser will ask for plug-in or ActiveX if not installed, otherwise it will get to Home page and start to show the video captured by the camera (by default the camera enabled anonymous access)
7. Click “Configuration”, the browser will ask credentials to authorize configuration.
8. Enter the administrator user name and password to access the Web Configuration Interface, the default user name and password are both set to **admin**.
9. In step 6, IE will indicate that “This website wants to install the following add-on: GSViewerX.cab from Grandstream Networks Inc.”, allow the installation.
10. Firefox user need to download and install the plug-in to see the video, the plug-in for Firefox is here:
http://www.grandstream.com/products/tools/surveillance/FireFox_Plugin_1.0.0.20_en.exe

NOTE:

- Please temporarily disable Antivirus or Internet Security Software when download and install the Grandstream Firefox plug-in for video or “GSViewerX.cab” for Microsoft Internet Explorer.

GXV3615WP_HD Home Web Page

The Home Page of GXV3615WP_HD shown as Figure 1:

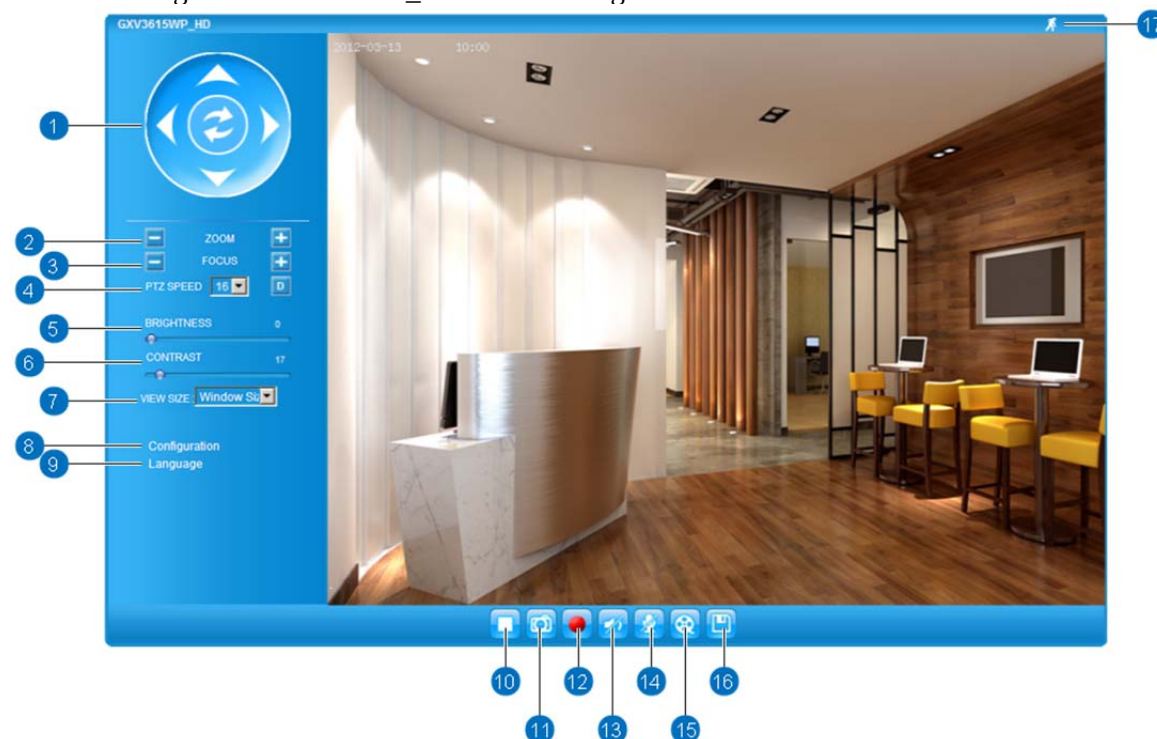


Figure 1: Home Page of GXV3615WP_HD

- | | |
|--|---|
| 1. Control Console: | PTZ Console controller for ePTZ function. |
| 2. ZOOM: | Zoom in or Zoom out during ePTZ operation. |
| 3. FOCUS: | Adjust the focus of image (Not Applicable to GXV3615WP_HD). |
| 4. PTZ SPEED/Default Button: | Adjust the rotate speed of the control console (Not Applicable);
Default button to reset the video brightness, contrast and saturation to factory default value. |
| 5. BRIGHTNESS: | Adjust the image brightness. |
| 6. CONTRAST: | Adjust the image contrast. |
| 7. SATURATION: | Adjust the image saturation. |
| 8. Configuration: | Click to enter "Configuration Page" to configure the parameters of GXV3615WP_HD (Administration privilege required). |
| 9. Language: | Click to switch webpage language.
(Current supported: Chinese, English and Russian) |
| 10. Play/Stop: | Start/Stop Play the video stream in webpage. |
| 11. Snapshot: | Click to capture and save a snapshot of current video displayed.
Default directory: C:\GS_Capture |
| 12. Record: | Click to Start/Stop record of current video into a file.
Default directory: C:\GS_Record |
| 13. Sound On/Off: | Toggle to listen/stop the sound from camera microphone |
| 14. Talk: | Toggle to talk to camera speaker. (PC microphone required) |
| 15. Replay: | Click to playback the recorded video file. |
| 16. Record File Path: | Click to adjust the file path of saved video files. |
| 17. Motion Detection Alarm Indicator: | If motion detection alarm triggered, the indicator will flash in red .
Click the indicator icon to turn off the alarm indication. |

GXV3615WP_HD Configuration & Language Page

- When click the “Configuration” tab, web page will link to page to configure the related parameters of the GXV3615WP_HD.
- There are two big categories of settings: Basic Settings and Advanced Settings. Details will be illustrated in the later Chapter.
- When click the “Language” tab, supported languages will be displayed in Figure 2. Click to select the related webpage display language.

Figure 2: Web Language Switch



- Currently firmware only support: English (default), Simplified Chinese and Russian.

BASIC SETTINGS EXPLANATION

System Settings Page

This page allow user to configure the system settings of GXV3615WP_HD.



Current System Time

Date: 2012-03-22
Time: 09:17:06

Set the System Time

Time Zone: Using self-defined Time Zone

Self Defined Time Zone: EST+5EDT+4,M3.2.0,M11.1.0

☐ Update via NTP Server
☐ Synchronize with Local Computer
☐ Set the Time Manually
☒ Keep Current Date and Time

Save

OSD Date Format

OSD Date Format: MM/DD/YYYY

Save

Device Setting

Turn off the LED Indicator: ☐

Device Name: GXV3615WP_HD

Save

MTZ+6MDT+5,M4.1.0,M1 area, system time zone is M4.1.0, means the start of the month. M11.1.0 means the duration is 1 hour.

Figure 3: System Settings Page

- **Current System Time:** Display time current system is running at
- **Set the System Time:** Configure the time system is running.
 - o Time Zone: Select from pull down menu the time zone unit located
 - o Self-Defined Time Zone: Use the self-defined time zone for automatic daylight saving time adjustment. Format please refer to the “help over mouse”
 - o Update via NTP Server: Synchronize time using NTP protocol with a Time Server over the Internet cloud (*)
 - o Synchronize with Local Computer: Synchronize time with local computer
 - o Set the Time Manually: Manually input the time
 - o Keep Current D/T: Select to use camera current displayed time
- **OSD Date Format:** Pull down to select date format displayed on video screen.
- **Device Setting:** Setting of Device Operation
 - o Turn off the Select to turn off the **Green** LED camera operation indication
 - o Device Name: The name of device which will be shown in the result of GS_Search program.

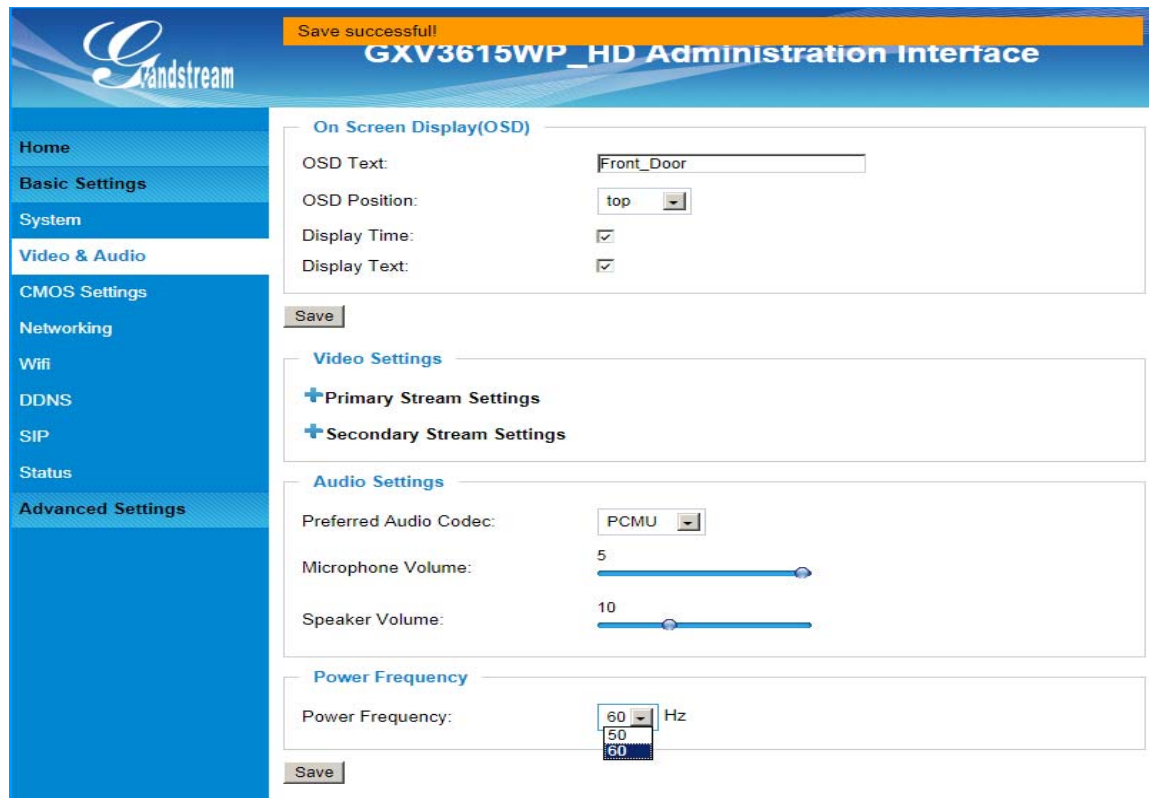
NOTE:

(*) If select this option, a valid DNS server must be configured under **Basic Settings** → **Networking**

➤ **Save** button has to be clicked to save all the changes made to the device.

Video & Audio Setting Page

This page allows user to configure the video and audio related settings.



The screenshot shows the 'GXV3615WP_HD Administration Interface' with a 'Save successful!' message. The left sidebar contains navigation links: Home, Basic Settings, System, Video & Audio (selected), CMOS Settings, Networking, Wifi, DDNS, SIP, Status, and Advanced Settings. The main content area is divided into sections: 'On Screen Display(OSD)' with fields for OSD Text (Front_Door), OSD Position (top), Display Time (checked), and Display Text (checked); 'Video Settings' with expandable sections for Primary and Secondary Stream Settings; 'Audio Settings' with Preferred Audio Codec (PCMU), Microphone Volume (5), and Speaker Volume (10); and 'Power Frequency' with a dropdown set to 60 Hz. Each section has a 'Save' button.

Figure 4-1: Video & Audio Settings Page

- **On Screen Display (OSD):** Display time stamp and text on the video screen.
 - o OSD Text: Inputted text (to identify the camera) shown on the screen.
 - o OSD Position: Show the OSD in either top or bottom position on screen.
 - o Display Time: When checked, time stamp will display on video screen
 - o Display Text: When checked, inputted text will display on video screen.
- **Audio Settings:** Pull down to disable or select different audio codec used in microphone. Three codec supported: G.711u, G.711a and AAC.
 - o Microphone Volume: Slide to adjust microphone gain.
 - o Speaker Volume: Slide to adjust the built-in speaker volume.
- **Power Frequency:** Select correct local power frequency to avoid video flicking effect under fluorescence light condition.

Video Settings

Primary Stream Settings

Preferred Video Codec:

Resolution:

Bit Rate: kbps

Maximum Frame Rate: fps

Bit Rate Control: ☒ CBR ☐ VBR

I-frame Interval: Frame(1-100)

Secondary Stream Settings

Preferred Video Codec:

Resolution:

Bit Rate: kbps

Maximum Frame Rate: fps

Bit Rate Control: ☐ CBR ☒ VBR

Image Quality:

I-frame Interval: Frame(1-100)

Figure 4-2: Video & Audio Settings Page

- **Primary Stream Settings:**
 - o Preferred Video Codec: MJPEG and H.264 supported, H.264 recommended.
 - o Resolution: The video resolution in pixel used in camera video
 - o Bit Rate: video bit rate used in video
 - o I-frame Interval: I-frame interval
- **Secondary Stream Settings:** Pull down to select, same as Primary steam..

NOTE:

- H.264 suggested if camera needs to be viewed via Internet.
- If MJPEG selected, reduce fps to minimum to save bandwidth and get better image
- Grandstream IP Camera provides two video streams, user can use them with flexibility. For example, the high-resolution stream for local recording; another low or high resolution for remote monitoring; or vice versa depending application scenarios.
- Use below link to calculate bandwidth and storage before installation
<http://www.grandstream.com/support/tools/bandwidth-storage-calc>

CMOS Settings Page

This page allows user to adjust the CMOS parameters:

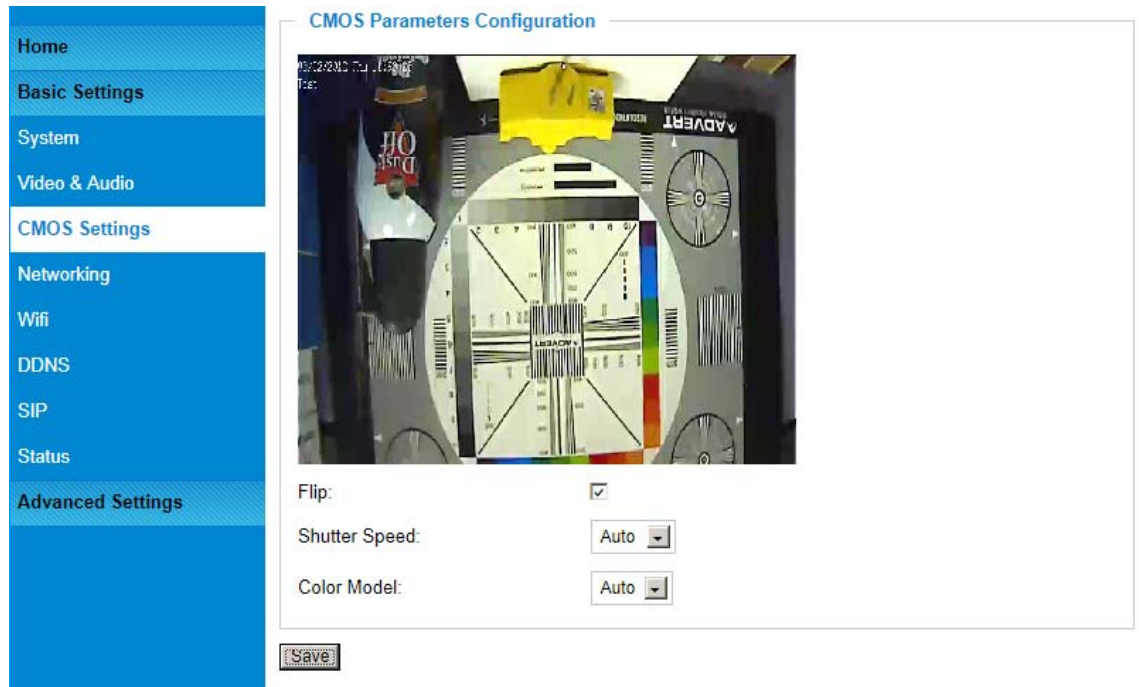


Figure 5: CMOS Settings Page

- **Flip:** Check this will allow video flip 180° vertically in horizontal axis.
- **Shutter Speed:** Camera Shutter Speed. There are six options: Auto; 1/20; 1/25; 1/30; 1/50; 1/100.
- **Color Mode:** Camera Color Mode. There are three options: Color; Black/White; Auto.

NOTE:

- *Flip option recommended if camera requires ceiling installation*
- *Auto option recommended for both Shutter Speed and Color Mode.*

Networking Setting Page

This page allows user to configure network related parameters:

IP Address Configuration

☐ Dynamically Assigned via DHCP
☒ Statically Configured as:

IP Address: 192.168.1.68

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

DNS Configuration

☐ Obtain DNS Server Address Automatically
☒ Use the Following DNS Server Address:

Primary DNS Server: 64.119.143.2

Secondary DNS Server: 71.243.0.12

HTTP

HTTP Port: 8088

Save

Figure 6: Networking Setting Page

- IP Address Configuration:** Camera IP address configuration
 - Dynamically Associated via DHCP: Default setting, DHCP server assign IP to camera.
 - Statically Configured as: Static IP address configuration
- DNS Configuration:** DNS server IP, must be configured correctly if using static IP.
- HTTP:** Web access TCP port, default 80.

NOTE:

- If camera behind SOHO router with port forwarding configuration for remote access, static IP or static DHCP has to be used to avoid IP address change after router reboot.
- TCP port above 5000 suggested if port forwarding HTTP remote access, due to some ISP would block port 80 inbound traffic. For example, change the default HTTP port from 80 to 8088, to make sure the port forwarding not likely be blocked.
- In addition to HTTP port, RTSP port also required to be configured for port forwarding, in order for remote party viewing the H.264 video.
- If change the default port from TCP 80 to port "A", then RTSP port should be "2000+A". Both TCP port "A" and "2000+A" should be configured for port forwarding in the router. For example, the HTTP port changed to 8088, the RTSP port should be 10088, both 8088 and 10088 should be configured for port forwarding in order for remote camera video access.

Wi-Fi Settings Page

This page allows user to configure Wi-Fi network related parameters:

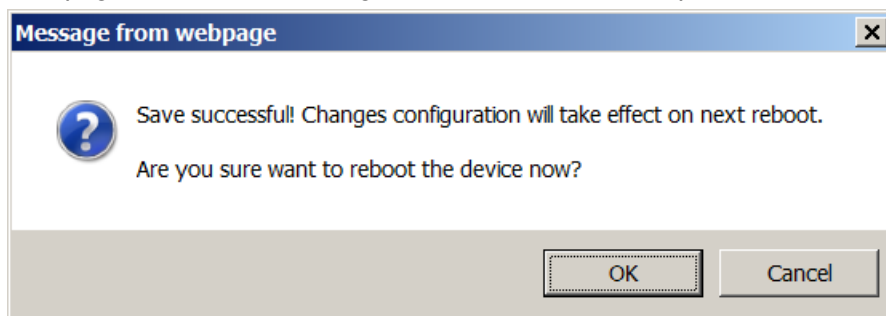


Figure 7-1: Wi-Fi Networking Setting Page

- **Enable Wi-Fi:** If checked and click “Save”, a reboot is required before Wi-Fi start to work. A pop up window will show as Figure 7-1.



Figure 7-2: Wi-Fi Networking Setting Page

- **SSID:** Wi-Fi network SSID. When Wi-Fi enabled, click “Scan” the camera will scan the Wi-Fi access point nearby.
- **Key:** Key for security enhanced Wi-Fi network the camera try joining.
- **Security Mode:** The security mode Wi-Fi access point or router used.

DDNS Settings Page

This page allows user to configure dynamic DNS related parameters:

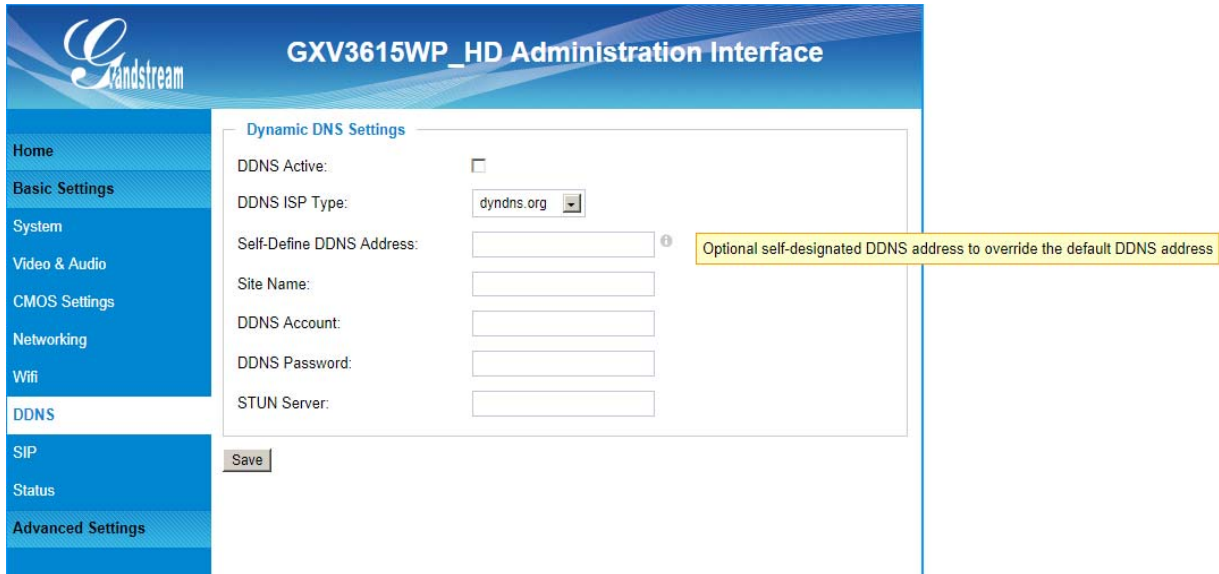


Figure 8: DDNS Setting Page

- **DDNS Active:** Enable DDNS by check this field.
- **DDNS ISP Type:** Select the DDNS service provider from the pull-down menu list
- **Self-Define DDNS Address:** Input the self-defined DDNS address
- **Site Name:** DDNS site name
- **DDNS Account:** DDNS account name
- **DDNS Password:** DDNS password
- **STUN Server:** Stun server FQDN or IP. If device behind a non-symmetric router, STUN server can help to penetrate & resolve NAT issue.

SIP Setting Page

This page allows user to configure SIP related parameters.

GXV3615WP_HD can be configured as SIP endpoint to call out when alarm triggered; or allow permitted number to call in to check the video if Grandstream video IP phone is used.

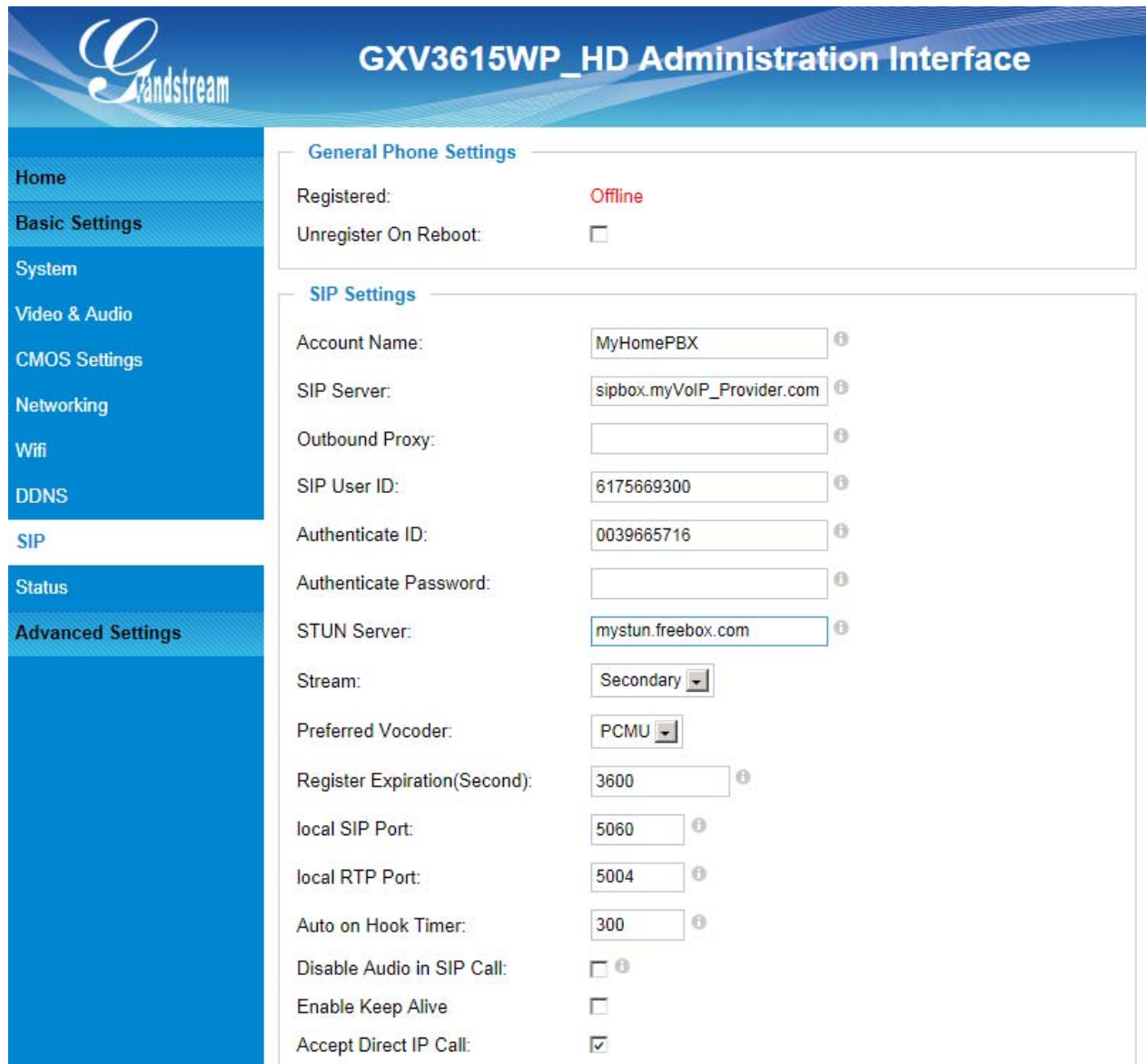
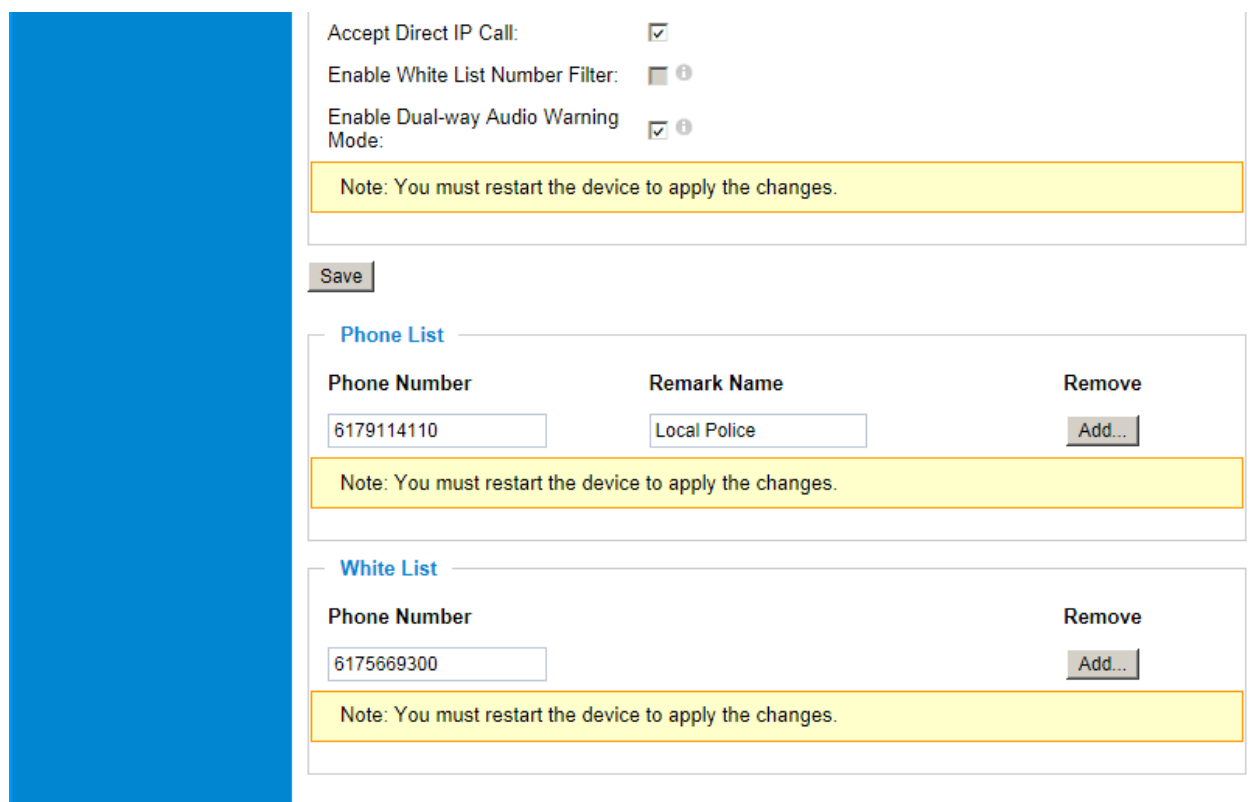


Figure 9-1: SIP Setting Page

- **Registered:** SIP registration status. Display “Online” in Green, “Offline” in Red.
- **Unregistered on Reboot:** If checked and server support, reboot camera will unbind all registration in same SIP account.
- **Account Name:** SIP account name
- **SIP Server:** FQDN or IP of SIP server from VoIP service provider
- **Outbound Proxy:** IP or FQDN of Outbound proxy server, helps penetrate NAT/Firewall
- **SIP User ID:** SIP username, or telephone number from ITSP

- **Authenticate ID:** Authenticate ID used by SIP proxy
- **Authenticate Password:** Authenticate password used by SIP proxy
- **STUN Server:** STUN server used to resolve NAT if have
- **Stream:** Which stream used for SIP call.
- **Preferred Vocoder:** Audio codec used for SIP call
- **Registration Expiration:** Registration expiration time, default 3600 seconds
- **Local SIP Port:** Local SIP port, default 5060
- **Local RTP Port:** Local RTP port for media, default 5004
- **Auto on hook Timer:** Auto On Hook timer, default 300 seconds
- **Disable Audio in SIP Call:** Checked to disable audio for SIP call
- **Enable Keep Alive:** Checked to enable, help NAT resolution
- **Accept Direct IP Call:** Check to accept peer to peer IP call.



The screenshot shows the SIP Setting Page with a blue sidebar on the left. The main content area has a white background. At the top, there are three checkboxes: 'Accept Direct IP Call' (checked), 'Enable White List Number Filter' (unchecked), and 'Enable Dual-way Audio Warning Mode' (checked). Below these is a yellow note box: 'Note: You must restart the device to apply the changes.' A 'Save' button is located below the note. The 'Phone List' section has a table with columns 'Phone Number', 'Remark Name', and 'Remove'. It contains one entry: '6179114110' with 'Local Police' as the remark name. Below the table is another yellow note box: 'Note: You must restart the device to apply the changes.' The 'White List' section has a table with columns 'Phone Number' and 'Remove'. It contains one entry: '6175669300'. Below the table is a third yellow note box: 'Note: You must restart the device to apply the changes.'

Figure 9-2: SIP Setting Page

- **Enable White List Number Filter:** Check to allow only white list number to call in, for security
- **Enable Dual-way Audio Warning:** Check to enable two-way audio warning.
- **Phone List/Phone Number:** Callee or call receiver number when alarm call triggered.
- **White List/Phone Number:** Phone numbers allowed to call into the camera.

Status Page

This page shows the GXV3615WP_HD operation status:



The screenshot shows the 'GXV3615WP_HD Administration Interface' with a blue header and a left sidebar. The sidebar contains links: Home, Basic Settings, System, Video & Audio, CMOS Settings, Networking, Wifi, DDNS, SIP, Status, and Advanced Settings. The 'Status' link is highlighted. The main content area displays three sections: System Statistics, Network Status, and Camera Type.

System Statistics	
Product Model:	GXV3615WP_HD
Hardware Version:	V1.1A
Part Number:	9670003411A
Bootloader Version:	1.0.0.0
Core Version:	1.0.1.51
Base Version:	1.0.1.51
Firmware Version:	1.0.1.51
System Up Time Since:	2 minutes

Network Status	
MAC Address:	00:0B:82:27:F0:BA
LAN IP Address:	192.168.11.154
LAN Subnet Mask:	255.255.255.0
LAN Default Gateway:	192.168.11.254
DDNS Status:	Disabled
Wifi Status:	Disconnected
SIP Registered:	Online

Camera Type	
Camera Type:	CMOS

Figure 10: Status Page

NOTE:

- When SIP account registered, the status will display “Online” in Green.
- When SIP account unregistered, the status will display “Offline” in Red, as below.

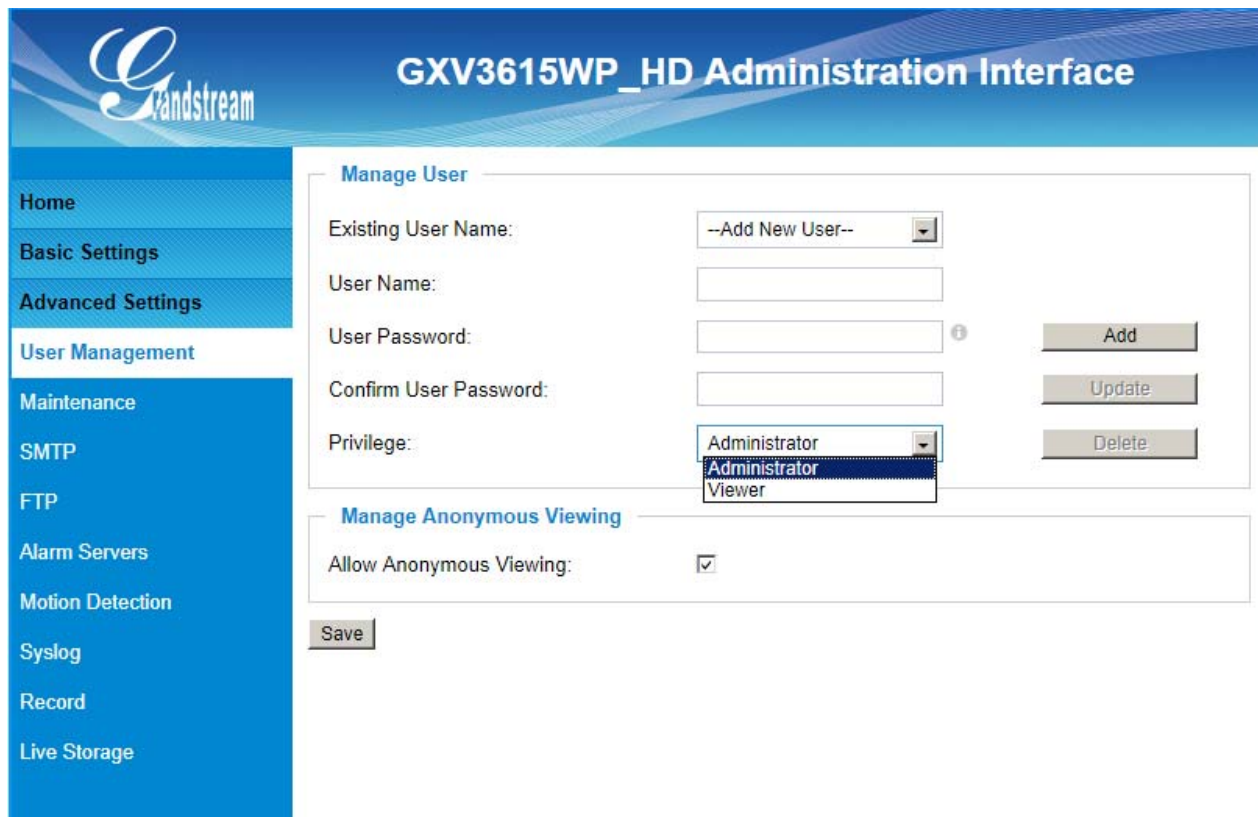
SIP Registered: Offline

ADVANCED SETTINGS EXPLANATION

The supports all the traditional and advanced telephony features.

User Management Page

This page allows user to do user management:



The screenshot shows the 'GXV3615WP_HD Administration Interface' with a sidebar menu on the left containing: Home, Basic Settings, Advanced Settings, User Management (selected), Maintenance, SMTP, FTP, Alarm Servers, Motion Detection, Syslog, Record, and Live Storage. The main content area is titled 'Manage User' and includes the following fields and buttons:

- Existing User Name: A dropdown menu with the option '--Add New User--'.
- User Name: A text input field.
- User Password: A text input field with a password strength indicator icon.
- Confirm User Password: A text input field.
- Privilege: A dropdown menu with options: Administrator, Administrator, and Viewer.
- Buttons: Add, Update, and Delete.

Below the 'Manage User' section is the 'Manage Anonymous Viewing' section, which includes:

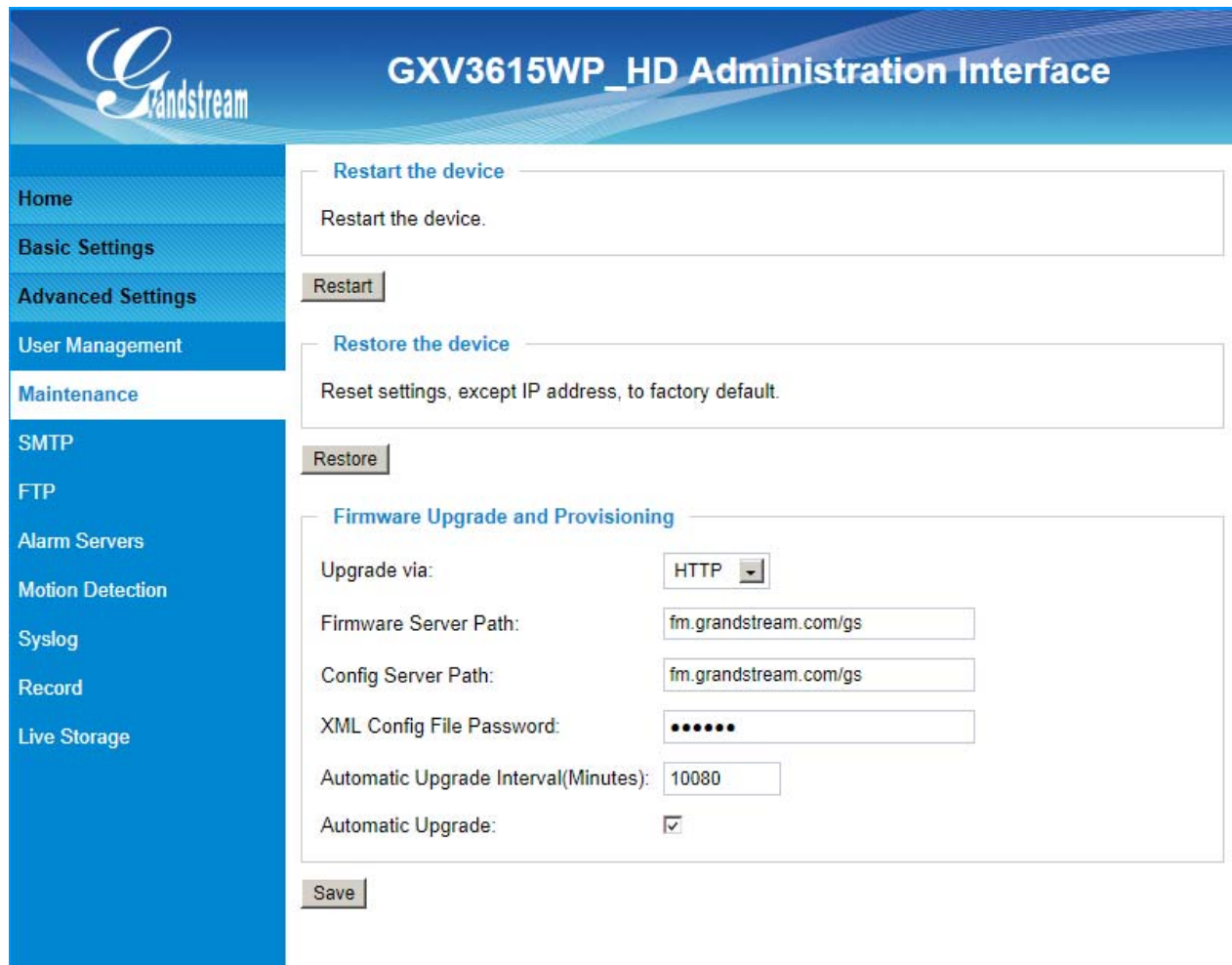
- Allow Anonymous Viewing: A checkbox that is currently checked.
- Save: A button.

Figure 11: User Management Page

- **Existing User Name:** Allow revise existing user or add new user
- **User Name:** The name of user need to be revised
- **User Password:** New password if revise password
- **Confirm User Password:** Re-enter the new password for verification
- **Privilege:** Choose user privilege
- **Allow Anonymous Viewing:** When checked, no security enhanced. Any person can view the camera if knowing the IP or FQDN of the camera, but can NOT change anything, just view ONLY.

Maintenance Page

This page allows user to maintain the camera:



The screenshot shows the 'GXV3615WP_HD Administration Interface' with a blue header and a left sidebar. The sidebar lists various settings categories: Home, Basic Settings, Advanced Settings, User Management, Maintenance (highlighted), SMTP, FTP, Alarm Servers, Motion Detection, Syslog, Record, and Live Storage. The main content area is titled 'Maintenance' and contains three sections: 'Restart the device' with a 'Restart' button, 'Restore the device' with a 'Restore' button, and 'Firmware Upgrade and Provisioning' with fields for 'Upgrade via' (HTTP), 'Firmware Server Path' (fm.grandstream.com/gs), 'Config Server Path' (fm.grandstream.com/gs), 'XML Config File Password' (masked with dots), 'Automatic Upgrade Interval(Minutes)' (10080), and 'Automatic Upgrade' (checked). A 'Save' button is at the bottom.

Figure 12: Maintenance Page

- **Restart:** When clicked, the camera will reboot or restart
- **Restore:** When clicked, the camera will be reset to factory default, wiping out all the configurations (except IP address)

Firmware Upgrade and Provisioning:

- **Upgrade via:** Upgrade firmware via TFTP, HTTP or HTTPS
- **Firmware Server Path:** Server path holding the firmware
- **Config Server Path:** Server path holding the configuration file (auto provisioning)
- **XML ConfigFile Password:** Password for encrypt the XML based configuration file
- **Automatic Upgrade Interval (Minutes):** Time interval for automatic upgrade, default 10080
- **Automatic Upgrade:** Checked to enable automatic firmware upgrade and provisioning.

NOTE:

- Only XML based automatic provisioning is supported by GXV3615WP_HD.

SMTP Setting Page (Email Alarm)

This page allows user to configure email client to send out email when alarm triggered:



Figure 13: SMTP Setting Page

- **Enable SMTP:** When checked, email client is enabled.
- **SMTP Server:** SMTP Email Server IP or Domain Name
- **SMTP Server Port:** Port number used by server to send email
- **From Email address:** The email address of alarm email sending from, usually client email ID
- **To E-Mail address:** The email address to receive the alarmed email, total 3 included.
- **User Name:** Email client User ID
- **Password:** Email client password
- **SSL:** Check if the SMTP email server requires SSL

NOTE:

- Click “Save” to save the email configuration information.
- Click “Test” after configuration, if setting is correct, a test email will send out and “Test successful!” yellow bar will display like below



FTP Settings Page (Upload Alarm)

This page allows user to configure FTP parameters to upload the alarm or video recording::

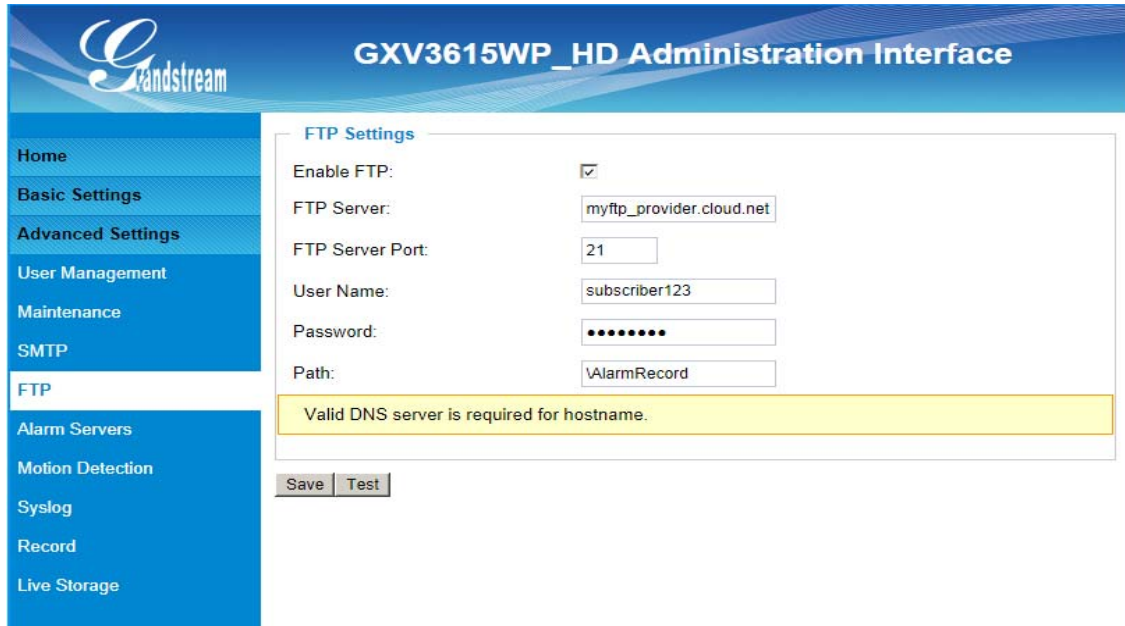


Figure 14: FTP Setting Page

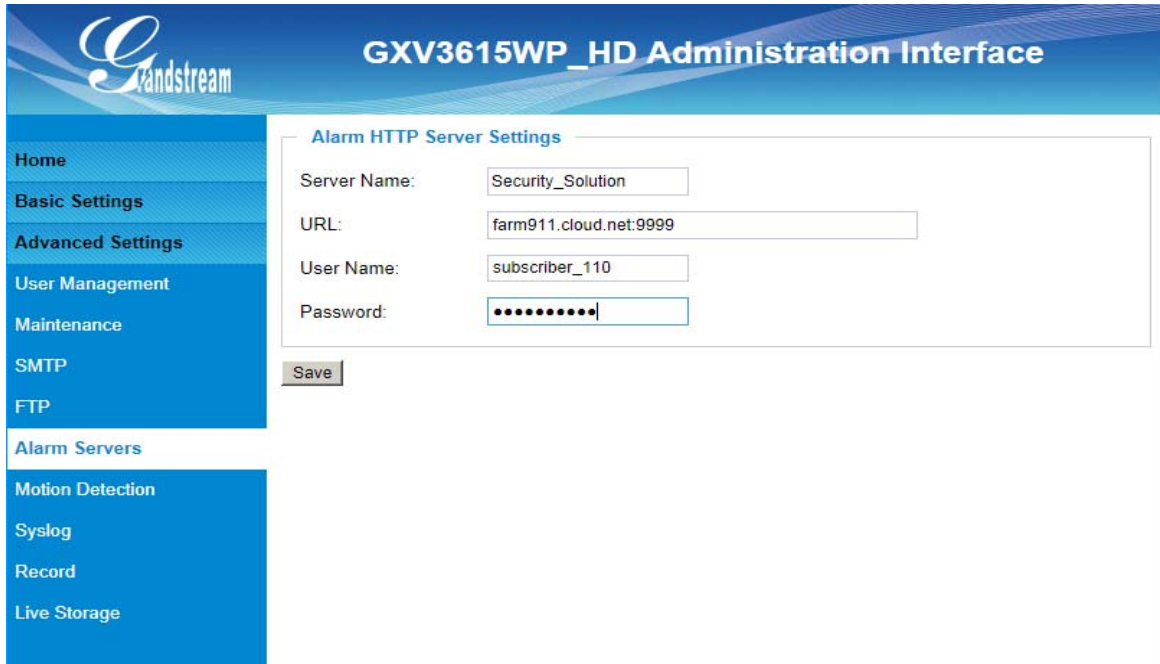
- **Enable FTP:** When checked, built-in FTP client is enabled.
- **FTP Server:** IP or Domain name of FTP site or server
- **FTP Server Port:** TCP port for FTP server, default port number 21
- **User Name:** FTP server User ID
- **Password:** FTP server user password
- **Path:** Path in the server where upload files are stored.

NOTE:

- Click “Save” to save the FTP configuration information.
- Click “Test” after configuration, if setting is correct, a test FTP operation will be performed and “Test successful!” yellow bar will display if the operation is successful.

Alarm Server Settings Page (Upload Alarm to supported VMS or HTTP Server)

This page allows user to configure alarm HTTP server to upload alarms:



The screenshot shows the 'GXV3615WP_HD Administration Interface' with a sidebar menu on the left and a main settings area on the right. The sidebar menu includes: Home, Basic Settings, Advanced Settings, User Management, Maintenance, SMTP, FTP, Alarm Servers (highlighted), Motion Detection, Syslog, Record, and Live Storage. The main area is titled 'Alarm HTTP Server Settings' and contains the following fields:

- Server Name: Security_Solution
- URL: farm911.cloud.net:9999
- User Name: subscriber_110
- Password: [masked with dots]

A 'Save' button is located below the password field.

Figure 15: Alarm HTTP Server Setting Page

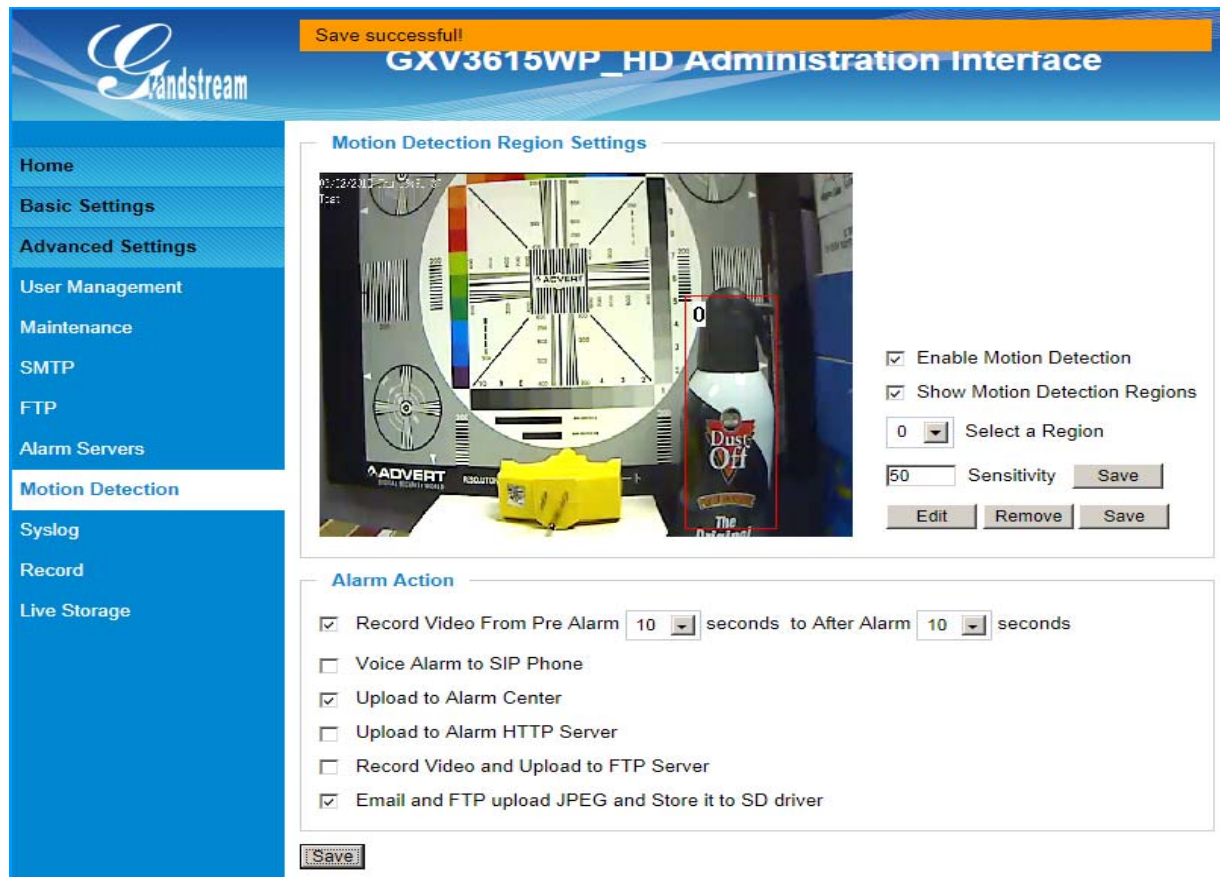
- **Server Name:** The name of HTTP server or VMS system
- **URL:** URL of the Server
- **User Name:** User ID from that Server
- **Password:** Password for that User ID

NOTE:

- Grandstream provide HTTP API to help 3rd party company by using HTTP server or VMS to develop further solutions for its customers.
- Grandstream IP Camera and DVS (include GXV3615WP_HD) are ONVIF certified.

Motion Detection Configuration Page (Set Alarm)

This page allows user to configure motion detection to trigger alarms:



Save successful!

GXV3615WP_HD Administration Interface

Motion Detection Region Settings

11:22:11 AM 11/27/2012

☒ Enable Motion Detection

☒ Show Motion Detection Regions

0 Select a Region

50 Sensitivity

Save

Edit Remove Save

Alarm Action

☒ Record Video From Pre Alarm 10 seconds to After Alarm 10 seconds

☐ Voice Alarm to SIP Phone

☒ Upload to Alarm Center

☐ Upload to Alarm HTTP Server

☐ Record Video and Upload to FTP Server

☒ Email and FTP upload JPEG and Store it to SD driver

Save

Figure 16-1: Motion Detection Configuration Page

- **Enable Motion Detection:** When checked, Motion Detection enabled.
- **Show Motion Detection Regions:** When checked, Motion Detection region with number will be displayed in White Rectangle in the screen; when “Edit” clicked, the Rectangle will become Red, as shown in Figure 16-1.
- **Select a Region:** Pull down to select and configure alarm region, altogether 16 alarm region available, from 0 to 15.
- **Sensitivity:** Select configured alarm region number, input number for sensitivity to trigger alarm, 100 is the maximum sensible value.

Alarm Action:

- **Record Video From.....** Allow user to select how long pre/after Alarm trigger moment, the video be captured.
- **Voice Alarm to SIP Phone:** When checked, a SIP alarm phone call will be made to pre-configured number.
- **Upload to Alarm Center:** When checked, the alarm video will be transferred to Alarm Center, like Grandstream free GSurf VMS software.

NOTE:

- Grandstream free GSurf VMS software can be downloaded here:

http://www.grandstream.com/products/tools/surveillance/Gsurf_1.0.0.28_en.exe

Upload to Alarm HTTP Server:

When checked, alarm will be transferred to the HTTP server via HTTP API.

- **Record Video and Upload to FTP Server:**

When checked, the alarm will be recorded and FTP to pre-configured FTP server.

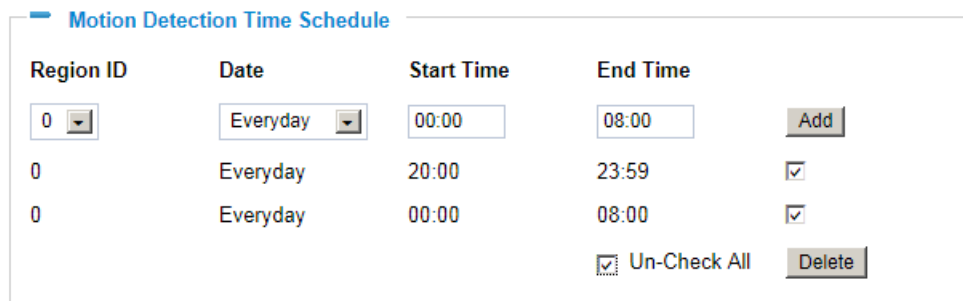
- **Email and FTP upload JPEG and Store it to SD driver:**

When checked, a snapshot of trigger moment will be generated and email to pre-configured email account, also save to the microSD card in the microSD card slot. (microSD card not provided).

NOTE:

➤ Email/Snapshot storage is mutual exclusive with SD card DVS recording in next section.

This page allows user to configure Motion Detection Operation Schedule:



The screenshot shows a web interface titled "Motion Detection Time Schedule". It contains a table with columns: Region ID, Date, Start Time, End Time, and an action column. The first row is a header. Below it, there are three rows of data. The first row has a dropdown for Region ID (0), a dropdown for Date (Everyday), and input fields for Start Time (00:00) and End Time (08:00), followed by an "Add" button. The second and third rows have Region ID (0), Date (Everyday), and checkboxes in the action column. At the bottom, there is a checkbox labeled "Un-Check All" and a "Delete" button.

Region ID	Date	Start Time	End Time	
0	Everyday	00:00	08:00	Add
0	Everyday	20:00	23:59	☒
0	Everyday	00:00	08:00	☒
				☒ Un-Check All Delete

Figure 16-2: Motion Detection Schedule Configuration Page

- As shown in Figure 16-2, user can configure the Motion Detection Region with related Start and Stop time to control the motion detection operation.

Syslog Settings Page (Troubleshooting)

This page allows user to enable the Syslog to help troubleshooting problems:

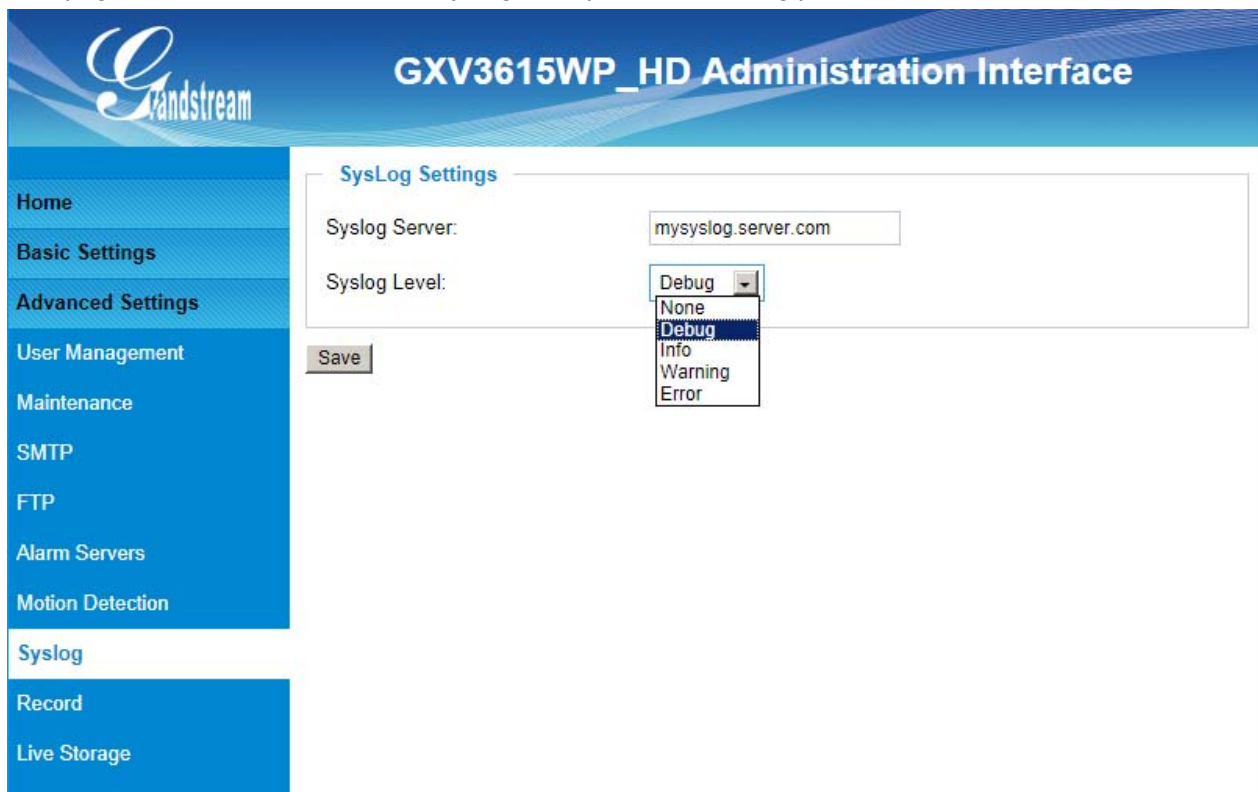


Figure 17: Alarm Server Setting Page

- **Syslog Server:** Syslog server IP or Domain Name
- **Syslog Lever:** Lever of syslog message sent to the syslog server:
None, Debug, Info, Warning, Error.

Record Settings Page (Local DVR Record Schedule)

This page allows user to configure microSD card Record Schedule:



Record Settings

Enable Record Schedule: ☐

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
S																								
M																								
T																								
W																								
T																								
F																								
S																								

Copy: Sunday To: All Copy

Save

Manual Recording

Manual Recording: Start

Figure 18: Record Time Schedule Setting Page

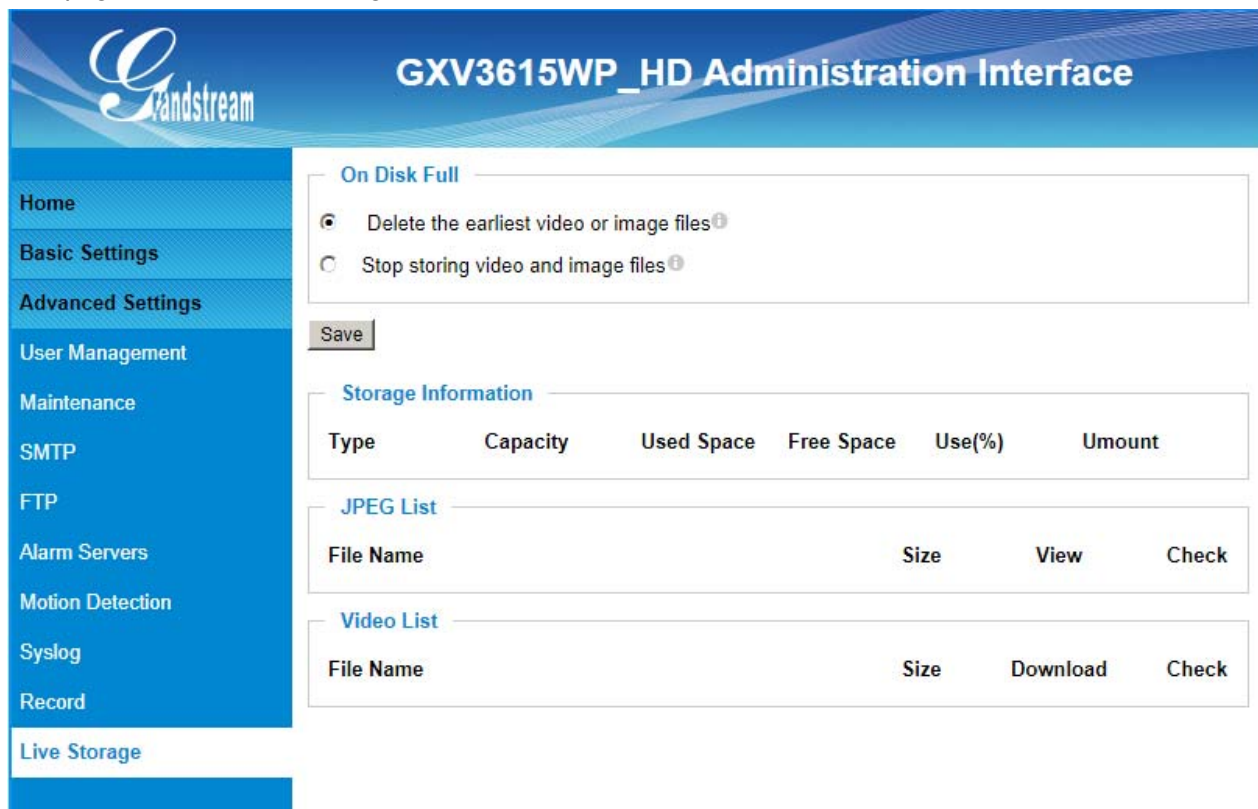
- Enable Record Schedule:**
 When checked it will enable Scheduled Recording on microSD card.
 Click the related block, the grey colored time block means there is a scheduled recording.
- Manual Recording:**
 When clicked and if there is NO scheduled recording, the GXV3615WP_HD will start recording.

(*) Record Button Operation when Pressed:

- If no record task configured, the camera will start recording. Both the Red and Green LED light will flash simultaneously 5 times with interval of 0.5 second, then back to previous state.
- If the camera is recording via manual recording mode, then it will STOP recording. Red LED will flash 5 times with interval of 0.5 second, Green LED will turn OFF, then back to the previous state.
- If camera configured with scheduled recording, camera will NOT do any operation. Both Red and Green LED will light up for about 3 seconds, then back to the previous state.

Live Storage Setting Page (microSD card File Management)

This page allows user to manage the recorded files in microSD card:



The screenshot shows the 'Live Storage' page of the GXV3615WP_HD Administration Interface. The left sidebar contains a menu with the following items: Home, Basic Settings, Advanced Settings, User Management, Maintenance, SMTP, FTP, Alarm Servers, Motion Detection, Syslog, Record, and Live Storage (which is highlighted). The main content area has a blue header with the Grandstream logo and the title 'GXV3615WP_HD Administration Interface'. Below the header, there are three sections: 'On Disk Full' with two radio button options, 'Storage Information' with a table header, 'JPEG List' with a table header, and 'Video List' with a table header.

On Disk Full

☒ Delete the earliest video or image files ⓘ

☐ Stop storing video and image files ⓘ

Save

Storage Information

Type	Capacity	Used Space	Free Space	Use(%)	Umount
------	----------	------------	------------	--------	--------

JPEG List

File Name	Size	View	Check
-----------	------	------	-------

Video List

File Name	Size	Download	Check
-----------	------	----------	-------

Figure 19: Live Storage - microSD card File Management Page

- **On Disk Full:**
Select below two different operations when microSD card is full
 - Delete the earliest video or image files
 - Stop storing video and image files
- **Storage Information:**
The microSD card information will be displayed in this column.
- **JPEG List:**
Motion triggered Snapshot JPEG file will be listed here.
- **Video List:**
Motion triggered video recording clip will be listed here.

NOTE:

- Grandstream free GSNVR DVR software can be downloaded here:
http://www.grandstream.com/products/tools/surveillance/GSNVR_1.0.0.17_en.exe

SOFTWARE UPGRADE

Software upgrade can be done via either TFTP, HTTP or HTTPS. The corresponding configuration settings are in the ADVANCED SETTINGS configuration page.

Software Upgrade via TFTP, HTTP or HTTPS

This page allows user to configure firmware upgrade:



The screenshot shows the 'GXV3615WP_HD Administration Interface'. On the left is a navigation menu with options: Home, Basic Settings, Advanced Settings, User Management, Maintenance, SMTP, FTP, Alarm Servers, Motion Detection, Syslog, Record, and Live Storage. The main content area has sections for 'Restart the device', 'Restore the device', and 'Firmware Upgrade and Provisioning'. The 'Firmware Upgrade and Provisioning' section is highlighted with a red box and contains the following fields and controls:

- Upgrade via: HTTP (dropdown menu)
- Firmware Server Path: fm.grandstream.com/gs
- Config Server Path: fm.grandstream.com/gs
- XML Config File Password: *****
- Automatic Upgrade Interval(Minutes): 10080
- Automatic Upgrade: ☒
- Buttons: Restart, Restore, Save

Figure 20: Firmware Upgrade and Provisioning

NOTES:

- Grandstream recommends end-user use the Grandstream HTTP server. Its address can be found at <http://www.grandstream.com/support/firmware>. Currently the HTTP firmware server IP address is **72.172.83.110**. For large companies, we recommend to maintain their own TFTP/ HTTP/HTTPS server for upgrade and provisioning procedures.

Instructions for local firmware upgrade using TFTP server:

- Unzip the file and put all of them under the root directory of the TFTP server.
- Put the PC running the TFTP server and the device in the same LAN segment.
- Please go to File -> Configure -> Security to change the TFTP server's default setting from "Receive Only" to "Transmit Only" for the firmware upgrade.
- Start the TFTP server, in the phone's web configuration page
- Configure the Firmware Server Path with the IP address of the PC
- Update the change and reboot the unit

End users can also choose to download the free HTTP server from <http://httpd.apache.org/> or use Microsoft IIS web server.

Configuration File Download

Grandstream SIP Device can be configured via Web Interface as well as via Configuration File through TFTP or HTTP/HTTPS. “Config Server Path” is the TFTP or HTTP/HTTPS server path for configuration file. It needs to be set to a valid URL, either in FQDN or IP address format. The “Config Server Path” can be same or different from the “Firmware Server Path”.

A configuration parameter is associated with each particular field in the web configuration page. A parameter consists of a Capital letter P and 1 to 3 (Could be extended to 4 in the future) digit numeric numbers. i.e., P2 is associated with “Admin Password” in the ADVANCED SETTINGS page. For a detailed parameter list, please refer to the corresponding firmware release configuration template.

When Grandstream Device boots up or reboots, it will issue request for configuration file named “cfgxxxxxxxxxx”, where “xxxxxxxxxx” is the MAC address of the device, i.e., “cfg000b820102ab”. The configuration file name should be in lower cases.

Currently GXV3615WP_HD only support XML configuration.

RESTORE FACTORY DEFAULT SETTING

WARNING!

Restoring the Factory Default Setting will DELETE all configuration information of the camera. Please BACKUP or PRINT out all the settings before approach to following steps. Grandstream will not take any responsibility if you lose all the parameters of setting or cannot connect to your VoIP service provider.

FACTORY RESET

There are three (3) methods for resetting your unit:

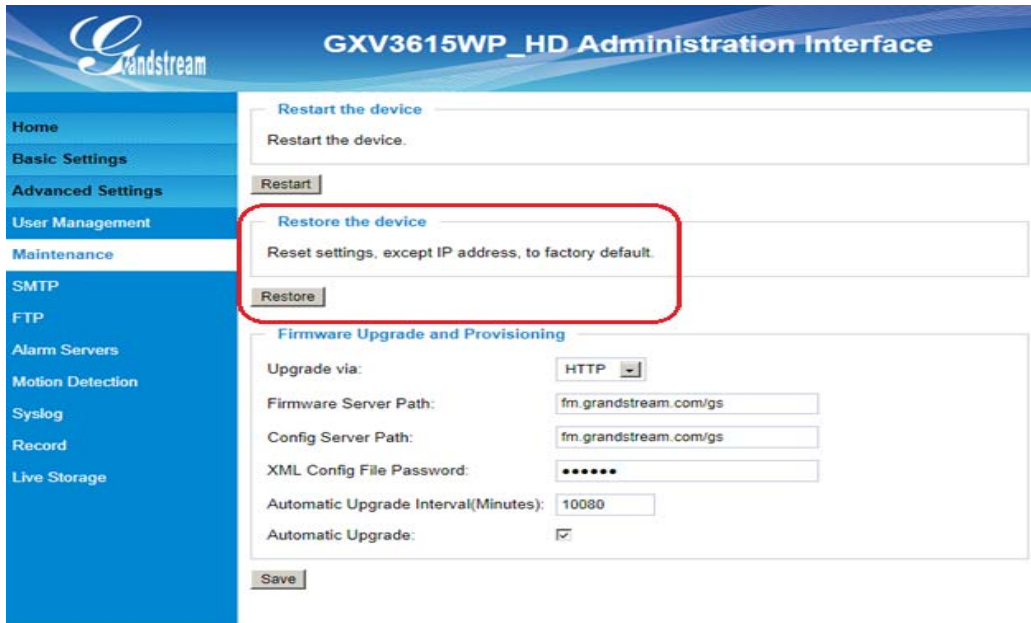
Reset Button

Reset default factory settings following these four (4) steps:

1. Unplug the Ethernet cable.
2. Locate a needle-sized hole on the back panel of the camera above the power jack.
3. Insert a pin in this hole, and press and hold for about 15 seconds till reboot
4. Take out the pin. All unit settings are restored to factory settings.

Reset from Web Interface

This page allows user to configure dynamic network related parameters:



The screenshot displays the 'GXV3615WP_HD Administration Interface'. On the left is a blue sidebar menu with options: Home, Basic Settings, Advanced Settings, User Management, Maintenance, SMTP, FTP, Alarm Servers, Motion Detection, Syslog, Record, and Live Storage. The main content area has a white background. It contains three sections: 'Restart the device' with a 'Restart' button; 'Restore the device' (highlighted with a red box) with a 'Restore' button; and 'Firmware Upgrade and Provisioning' with fields for 'Upgrade via' (HTTP), 'Firmware Server Path' (fm.grandstream.com/gs), 'Config Server Path' (fm.grandstream.com/gs), 'XML Config File Password' (masked with dots), 'Automatic Upgrade Interval(Minutes)' (10080), and 'Automatic Upgrade' (checked). A 'Save' button is at the bottom of the third section.

Figure 21: Factory Reset from Web Interface