securgen®

Video Server
Digital Encoder & Decoder

User Manual

model no. NE-VS201

Please carefully read these instructions before using this product.
Save this manual for future use.

1 Channel Network Encoder (NE-VS201)

User Manual

Manual Edition 30534AA – OCTOBER 2010

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SECURGEN

Liberty Lake, WA ● U.S.A.

Important Safeguards

1. **Read Instructions**
   Read all of the safety and operating instructions before using the product.
2. **Retain Instructions**
   Save these instructions for future reference.
3. **Attachments / Accessories**
   Do not use attachments or accessories unless recommended by the appliance manufacturer as they may cause hazards, damage product and void warranty.
4. **Installation**
   Do not place or mount this product in or on an unstable or improperly supported location. Improperly installed product may fall, causing serious injury to a child or adult, and damage to the product. Use only with a mounting device recommended by the manufacturer, or sold with the product. To insure proper mounting, follow the manufacturer's instructions and use only mounting accessories recommended by manufacturer.
5. **Power source**
   This product should be operated only from the type of power source indicated on the marking label.

Precautions

Operating

- Before using, make sure power supply and others are properly connected.
- While operating, if any abnormal condition or malfunction is observed, stop using the camera immediately and then contact your local dealer.

Handling

- Do not disassemble or tamper with parts inside the camera.
- Do not drop or subject the camera to shock and vibration as this can damage camera.
- Do not block the cooling holes on the bracket. This camera has a cooling fan inside the housing. Blocking the cooling holes will cause heat to build up and cause malfunction.
- Care must be taken when you clean the clear dome cover. Scratches and dust will ruin the image quality of your camera. Do not use strong or abrasive detergents when cleaning the camera body. Use a dry cloth to clean the camera when it is dirty. In case the dirt is hard to remove, use a mild detergent and wipe the camera gently.

Installation and Storage

- Install electricity wiring carefully. Please note that input electricity to the unit is at tolerance of DC 12V 10%.
- Do not install the camera in areas of extreme temperatures in excess of the allowable range. (-50°C ~50°C / -58°F ~ 122°F)
- Avoid installing in humid or dusty places. The relative humidity must be below 90%.
- Avoid installing in places where radiation is present.
- Avoid installing in places where there are strong magnetic fields and electric signals.
- Avoid installing in places where the encoder would be subject to strong vibrations.

Regulation

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.

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste in accordance with Directive 2002/96/EC. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By proper waste handling of this product you ensure that it has no negative consequences for the environment and human health, which could otherwise be caused if this product is thrown into the garbage bin. The recycling of materials will help to conserve natural resources.

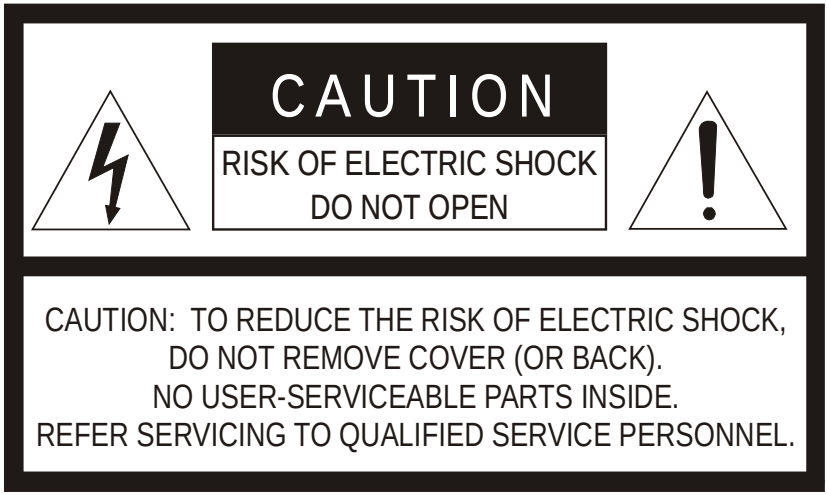
For more details information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Compliance is evidenced by written declaration from our suppliers, assuring that any potential trace contamination levels of restricted substances are below the maximum level set by EU Directive 2002/95/EC, or are exempted due to their application.

Warning

DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE.
DO NOT OPEN THE HOUSING.
REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

Caution



Standard Warranty

Serurgen warrants all new products to be free from defects in workmanship and material under normal use **for a period of two years** after the date of purchase. Any defective product that falls under this warranty will, at Securgen's discretion, be repaired or replaced at no additional charge. Securgen may elect to replace defective products with new or factory reconditioned products of equal or greater value. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Exceptions to this are listed below:

- Three Years on all Digital Recorders
- Three years on all fixed cameras

All products shall be covered by a one year advance replacement warranty*.

Securgen will warrant all otherwise out of warranty replacement parts and repairs for 90 days from the date of Securgen shipment.

The above warranty is the sole warranty made by Securgen and is in lieu of all other warranties by Securgen express and implied, including without limitation the warranties of merchantability and fitness for a particular purpose. Under no circumstances will Securgen be liable for any consequential, incidental, special or exemplary damages arising out of or connected with the sale, delivery, use or performance of the product, even if Securgen is apprised of the likelihood of such damages occurring. In no event shall Securgen liability exceed the purchase price of the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.

**Requires corresponding security deposit. Advanced Replacement limited to components only outside of the USA and Canada.*

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INTRODUCTION

OVERVIEW

The VS201 one channel network encoder is designed to integrate with existing systems, or install with a new system. The encoder is capable of RS-485 control of PTZ cameras, audio transmission and has a 12vDC output to easily provide power to an analog camera. With an integrated microSD™ slot, the encoder is capable of recording video when detecting motion, or when the onboard sensor is triggered.

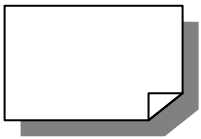
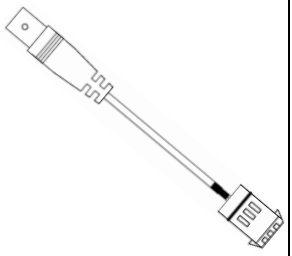
Product Features

- ONVIF™
- H.264 and MJPEG
- D1 Real-time Resolution
- PoE
- Dual Streaming
- Looping Video Output
- PTZ control
- Motion Detection

GETTING STARTED

PACKAGE CONTENTS

Before proceeding, please check that the box contains the items listed here. If any item is missing or has defects, DO NOT install or operate the product and contact your dealer for assistance.

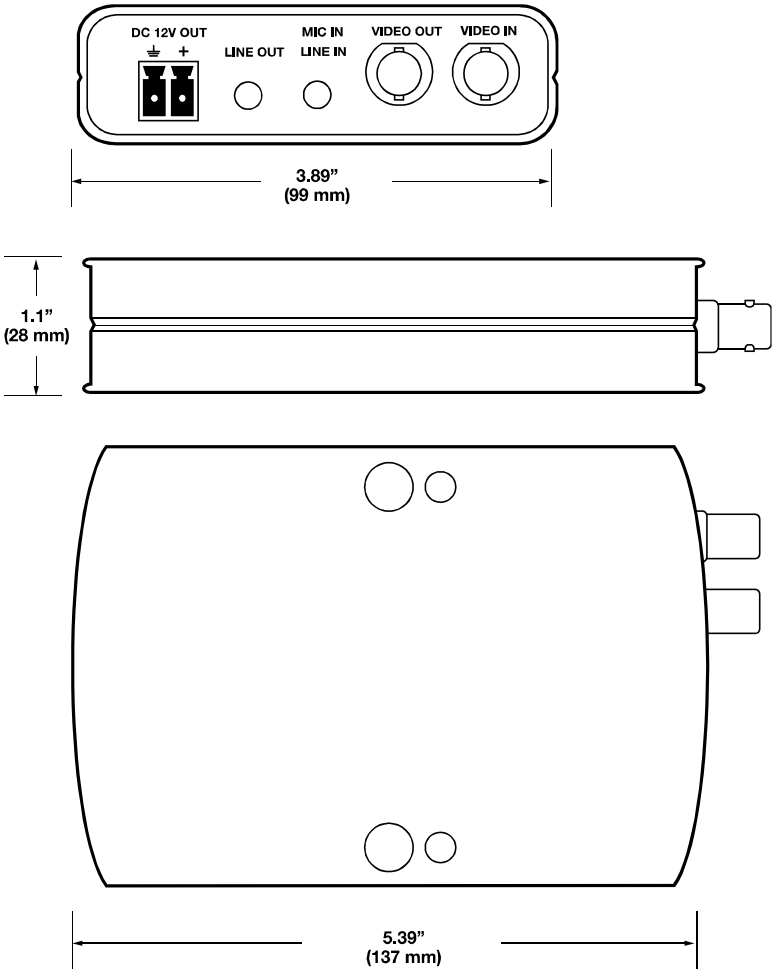
Video Server	**Screws**	**Plastic Anchors**
 **Quick Start Guide**	**CD**	 **DC Jack Cable (300mm)**

SETUP AND CABLE CONNECTION

Before installing or connecting the video server, please refer to this section.

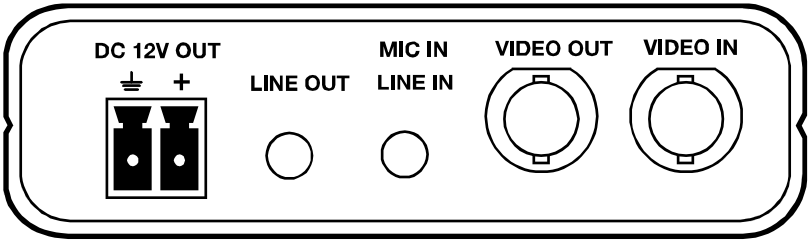
Video Server Setup

Dimensions



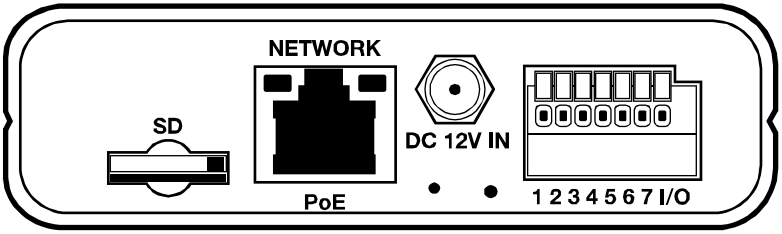
Connector Definition

Front



Connector	Pin	Definition
DC 12V OUT	-	Power Output Connection
LINE OUT	-	Audio Output
MIC IN / LINE IN	-	Audio and Microphone Input
VIDEO OUT	-	Analog Video Output to Monitor
VIDEO IN	-	Analog Video Input to Video Server

Rear



Connector	Pin	Definition
NETWORK / PoE	-	RJ-45 10/100 Mbps Ethernet / PoE
DC 12V IN	-	Power Input
RS-485	1	D+
	2	D-
	3	RS-485 GND
Alarm I/O	4	IN- (GND)
	5	IN+
	6	OUT-
	7	OUT+

Video Server Cable Definition and Requirements

The Network Video Server requires a network cable to carry the video signals to the remote viewing site.

Network Cable

Network cable max length is 328 feet (100m). To avoid signal attenuation, Securgen recommends that you do not exceed 295 feet (90m). You can use Power over Ethernet (PoE) to power compatible cameras using network cables up to the max length.

Power Connection

Make sure the power cable is correctly and firmly connected to the video server.

Power Wire Length Specifications

Wire Gauge	Maximum Distance	Wire Gauge	Maximum Distance
22	27 feet	14	175 feet
20	44 feet	12	279 feet
18	69 feet	10	444 feet
16	110 feet		

Note Ensure that the power supply corresponds with the power requirements of the video server or the device may be damaged. Contact a qualified maintenance engineer with any problems.

Ethernet Cable Connection

Connect one end of the CAT 5 Ethernet cable to the RJ-45 connector of the camera and the other end of the cable to the network switch or router.

Note In some cases, you may need to use an Ethernet crossover cable when connecting the video server directly to the recorder.

Check the status of the link indicator and activity indicator LEDs. If the LEDs are unlit, check the LAN connection.

The Green link light indicates a good network connection.

The Orange activity light flashes to indicate network activity.

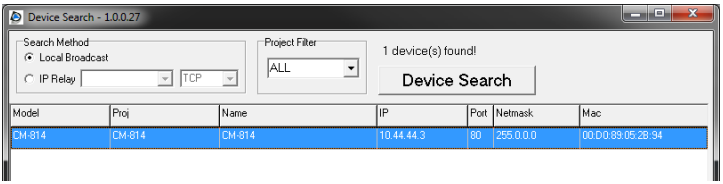
CAMERA FINDER

SECURGEN IP FINDER

Use the included IP Finder software to easily find your network device for initial setup. The Securgen IP Finder software is included on the CD with all Securgen IP devices.

Finding IP Devices

1. Open the Software CD on the recorder.
2. Click **Software** on the software disc menu.
3. Click **Launch Finder Software**.
4. Click **Device Search** on the **Device Search** window.



5. If a **Windows Security Alert** window opens, click **Unblock** to allow the IP utility to access your network.
6. Click **Device Search** again to find all connected IP devices.

Tip The default IP address of the VS201 is 192.168.0.250

7. Right-click the desired network device and select **Browse**.
8. Type the default username and password in the login window to access the video server using your internet browser.

Default Username and Password

The username and password are case sensitive. It is strongly recommended that the password be changed after the initial setup to prevent unauthorized access.

Username – Admin

Password – 1234

Changing the Network Type

You can change the network type from Static IP to DHCP easily from the list of connected IP devices. To change the network type to DCHP:

1. On the list of connected IP devices locate the desired network device and record the **MAC** address,
2. Right-click the network device row and select **Network Setup**.
3. Select the **DCHP** option on the **Network Setup** window and then click **Apply**.
4. Click **OK** to acknowledge the change.
5. After one minute, click **Device Search** to search for all connected IP devices.
6. Locate the network device using the **MAC** address recorded earlier and double click the network device row.
7. Type the **Username** and **Password** to access the network device.

SETUP & CONFIGURATION

CONNECTING TO THE NETWORK DEVICE

1. Locate the network device on the **IP Finder** list.
2. Double-click the network device to open the Viewer software in your web browser.
3. Log in to the network device with the appropriate **User Name** and **Password**.

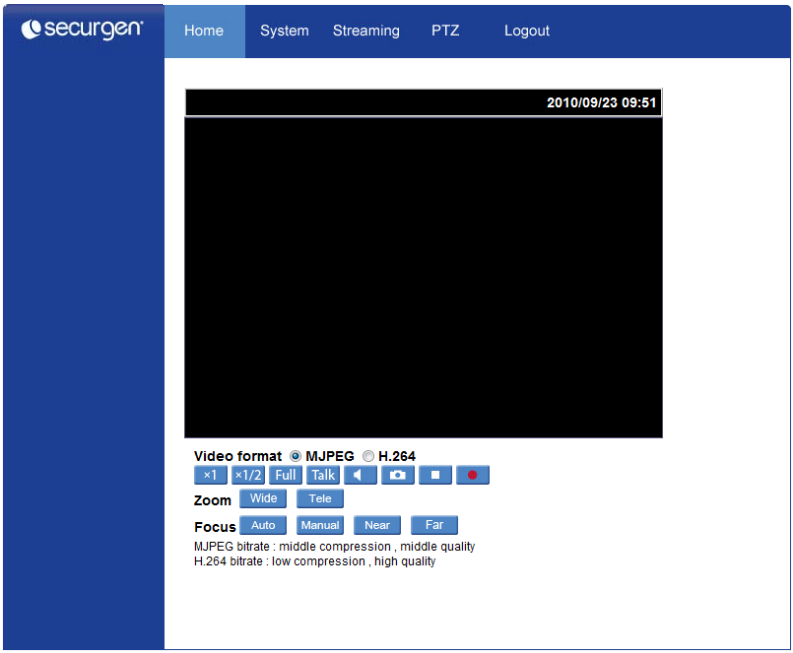
Note The default User name is Admin and the default Password is1234. The username and password are case sensitive. Securgen recommends you change the Admin password for security reasons.

Administrator/User Privileges

The Administrator account has the authority to configure the network device and authorize user access to the network device. The User accounts have access to the network device with limited authority as defined by the Administrator.

VIEWER SOFTWARE

You must install the viewer software on your PC or DVR to configure the device. The viewer software will install automatically the first time you connect to the network device. If your internet browser doesn't install the viewer software, check the security settings or ActiveX controls and plug-in settings. If your internet browser asks for permission to install the ActiveX control, you must allow the ActiveX control to continue the installation.



Viewer Tabs

Home – Monitor live video.

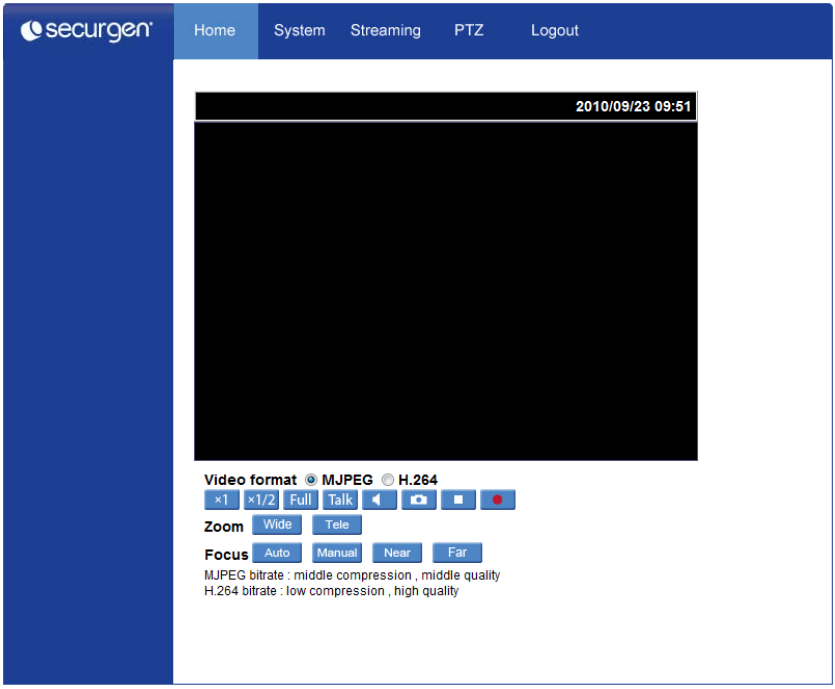
System – Set the host name, system time, root password, and network related settings. (Admin access only)

Streaming – Modify the video resolution and select the audio compression type.

PTZ –Control a PTZ camera and access the camera's on screen menu (if applicable).

Logout – Change user.

Home



Screen Size Adjustment – Click the screen size buttons to adjust image display size x1/2 and full screen.

Digital Zoom Control – In full screen mode, right-click to activate digital zoom and use the scroll wheel to zoom in/out.

Pan/Tilt Control – Move the cursor to the live video pane and drag the pointer in the desired direction.

Talk – Talk allows the local site to talk to the remote site. This function is only available to Users who have been granted this privilege by the Administrator.

Snapshot – Click the button, and a JPEG snapshot will automatically be saved in the appointed place. The default location is: C:\.

Note If you are using Windows Vista or 7, you will need to change the Snapshot location. Windows UAC does not allow internet programs to write directly to C:\ for security reasons.

Zoom – Click **Wide** or **Tele** to zoom out or in.

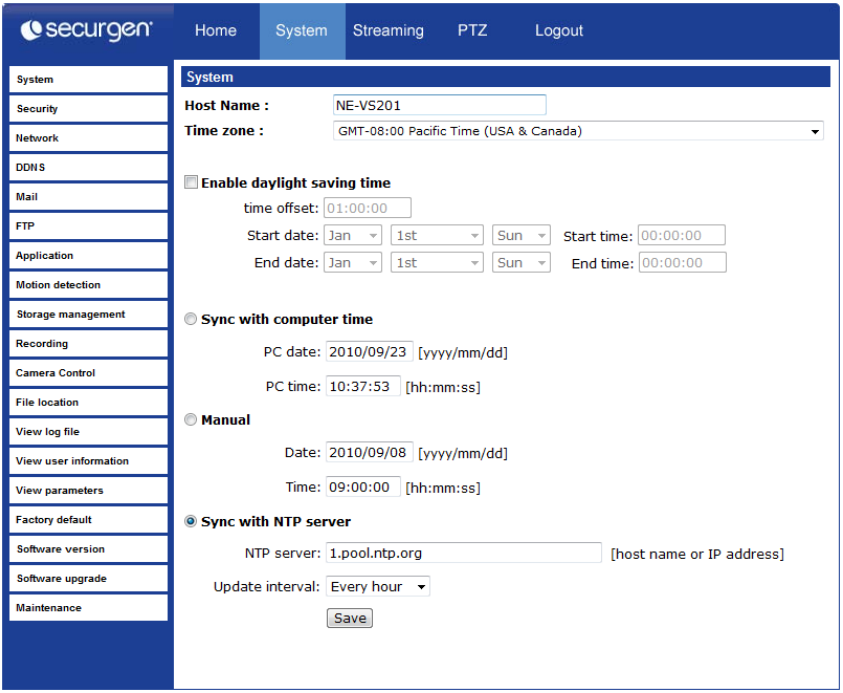
Focus

- **Auto** – Click **Auto** to enable Auto Focus mode. In Auto Focus mode, the camera will automatically and continuously adjust focus regardless of zoom changes or view changes of the camera.
- **Manual** – Click **Manual** to enable the **Near** and **Far** buttons for manual focus control.

System

Note The **System** tab is only accessible by the Administrator.

System



Host Name – The Host Name is used to identify the network device on your system. If camera based Motion Detection is enabled and is set to send alarm message by Mail/FTP, the host name entered here will display in the alarm message.

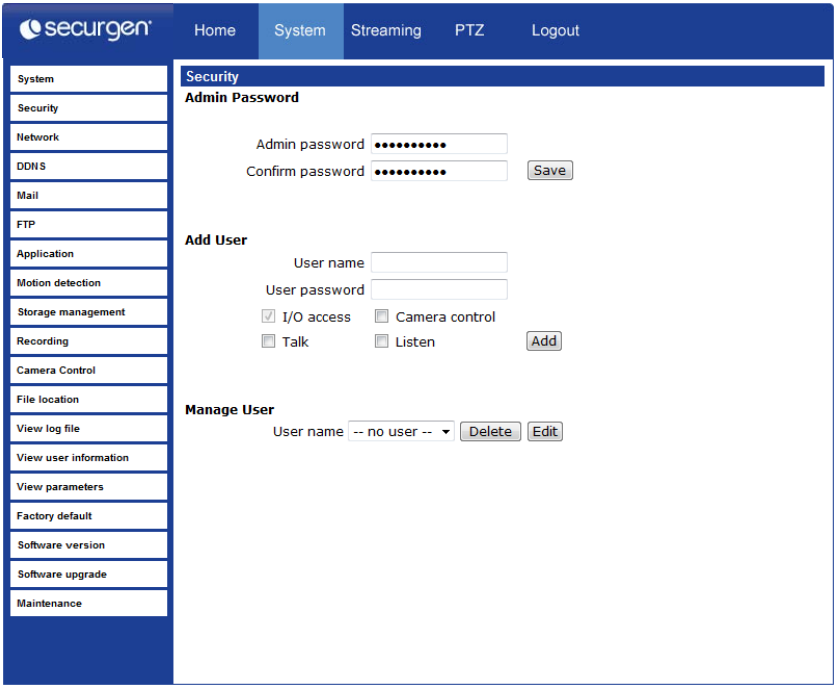
Time Zone – Select your time zone.

Sync With Computer Time – Select to synchronize the network device date and time with the connected DVR.

Manual – Set video date and time manually.

Sync with NTP server – Network Time Protocol (NTP) is an alternate way to synchronize your network device's clock with a NTP server. Specify the server you wish to synchronize in the **NTP Server** box. Then select an **Update Interval**. For more information about NTP, visit www.ntp.org.

Security



Admin Password

To change the administrator password, type a new password in the Admin Password box and confirm below.

Note The maximum length of the password is 14 characters. The following characters are valid: A-Z, a-z, 0-9 and !#$%&'-.@^_~.

Add User

The user name and passwords are limited to 16 characters. There is a maximum of twenty user accounts

1. Type the new User name and Password
2. Select the appropriate check boxes to give the user Camera Control, Talk and Listen permissions.

   I/O access - Basic functions that enable users to view video when accessing to the network device.

   Camera control - Allows the User to change camera parameters on the Camera tab.

   Talk/Listen --Talk and Listen functions allow the user at the local site (DVR) to communicate with, the administrator at the remote site.
3. Click Add.

Delete user

1. Select the user name on the **User Name** list
2. Click **Delete** to remove the user.

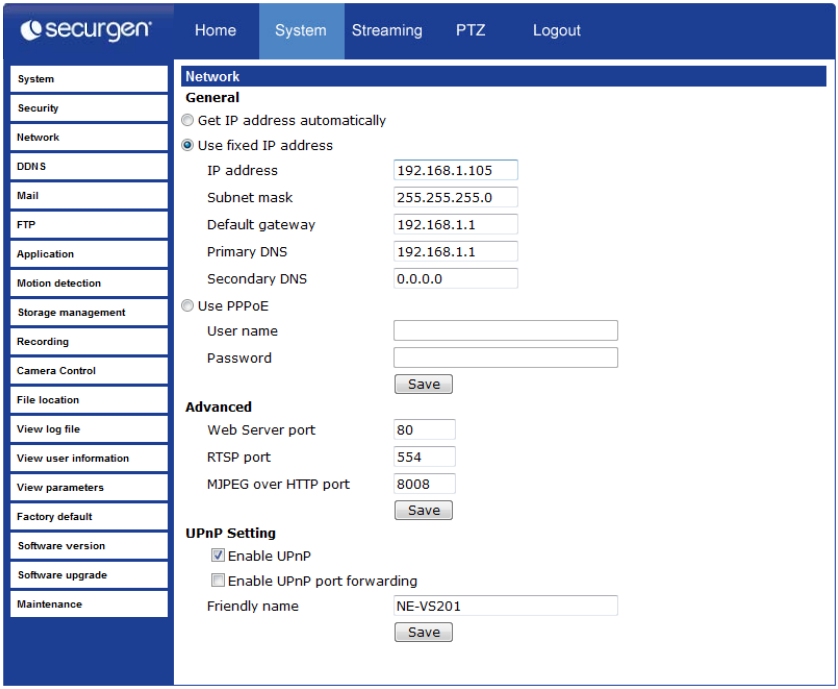
Edit user

1. Select the user name on the **User Name** list
2. Click **Edit** to edit the user password and permissions.
3. Type a new password or the existing password in the User password box

Note You must type a password in the User password box to make any changes to an account.

Note For security reasons every time the user properties are opened, the access boxes are automatically unchecked. Make sure you re-check any user access options any time you edit the user properties..

Network



You can choose to use a fixed IP address or a dynamic IP address (assigned by a DHCP server or router) for the network device.

Get IP address automatically (DHCP)

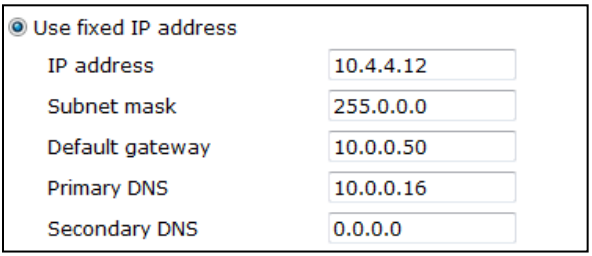
The video server comes preconfigured with a fixed IP address, selecting **Get IP address automatically** requires a router or DHCP server to assign an IP address to the network device.

Note Each network device has a unique Media Access Control (MAC) address, which can be used to identify the network device on the network. Record the MAC address of the network device, which can be found using the Securgen IP Finder application and on the label of the network device, for identification in the future.

Use fixed IP address

To set up a new static IP address:

1. Select the **Use fixed IP address** option.
2. Type a new IP address in the **IP address** box.
3. Type a new address in the **Default Gateway** box.
4. Click **Save** to confirm the new setting.



When using static IP address to log in to the network device, you can access it either through Securgen IP Finder software or type the IP address directly in the Address bar of your internet browser.

General

- **IP address** – The IP Address is necessary for network identification.
- **Subnet mask** - Used to determine if the destination is in the same subnet. The default value is 255.255.255.0.
- **Default gateway** - Used to forward frames to destinations on different subnets or for internet access.
- **Primary DNS -** The primary domain name server that translates hostnames into IP addresses.
- **Secondary DNS** - A secondary domain name server that backups the primary DNS.

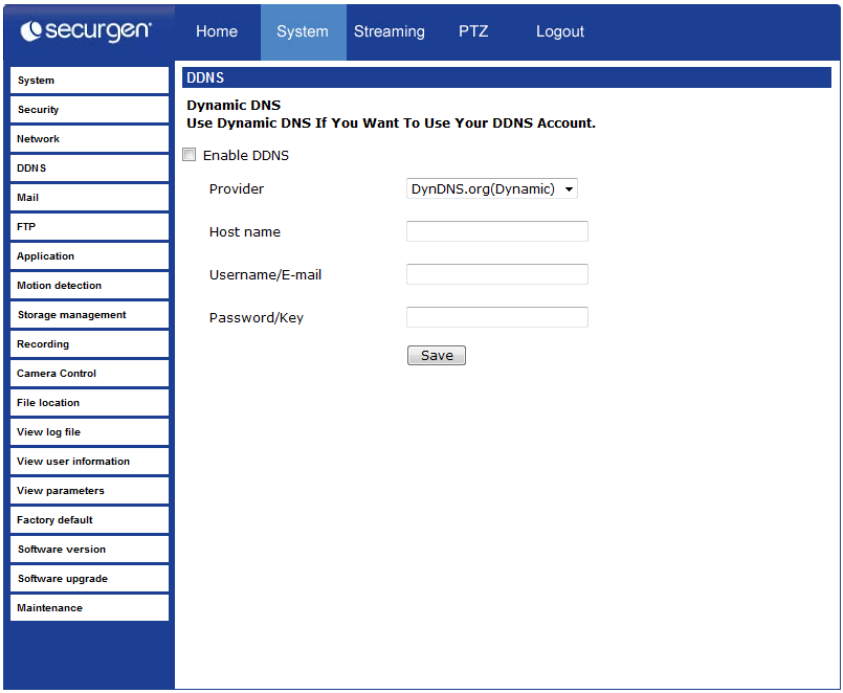
Advanced

- **Web Server port** - Defines the port that Internet Explorer uses to connect over the web and view video. If this port is changed then the new port must be defined when attempting to web connect (ex: if your network device's IP address is 192.168.0.100 and you change the web port to 8001, then you must type http://192.168.0.100:8001 in your browser).
- **RTSP port** – The default RTSP port is 554; setting range: 1024 ~65535.
- **MJPEG over HTTP port** - The default HTTP Port is 8008; setting range: 1024 ~65535.

Note The MJPEG over HTTP port must not be the same as the web server port.

DDNS

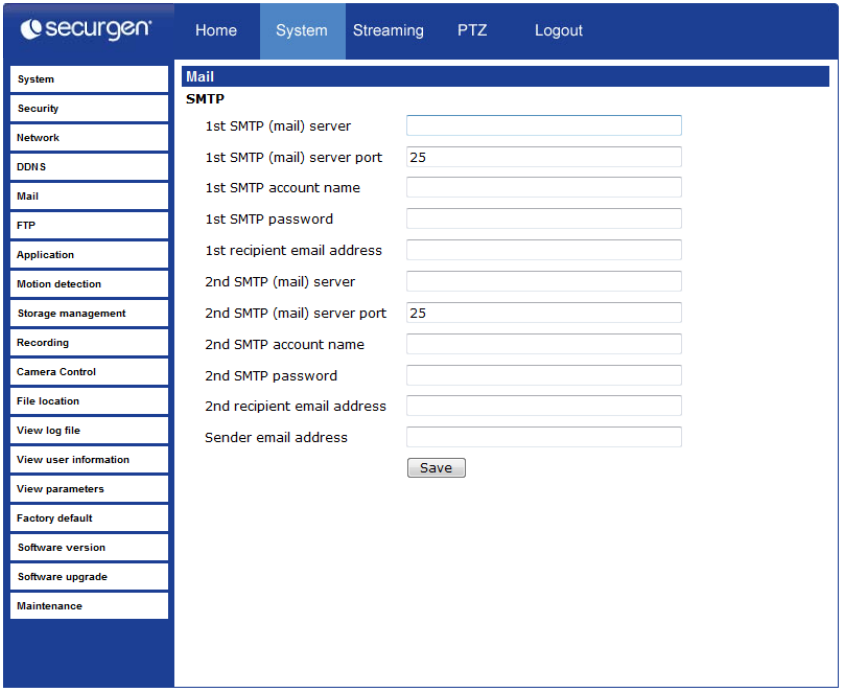
DDNS (Dynamic Domain Name Service) is a service that allows a connection to an IP address using a hostname (URL) address instead of a numeric IP address. Most Internet Service Providers use Dynamic IP Addressing that frequently changes the public IP address of your internet connection; this means when connecting to the network device over the internet you would need to know if your IP address has changed. DDNS automatically redirects traffic to your current IP address when using the hostname address.



- **Enable DDNS** – Select the check box to enable DDNS.
- **Provider** - Select a DDNS host from the Provider list.
- **Host name** - Type the registered domain name in the field.
- **Username/E-mail** - Type the username or e-mail required by the DDNS provider for authentication.
- **Password/Key** - Type the password or key required by the DDNS provider for authentication.

Mail

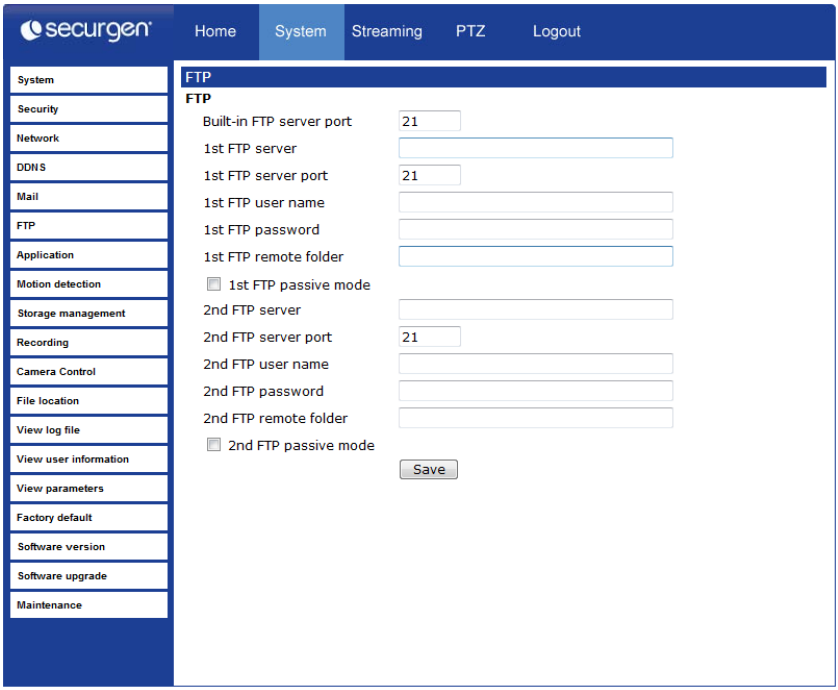
The network device can send an e-mail via Simple Mail Transfer Protocol (SMTP) when motion is detected or when the sensor input is activated. SMTP is a protocol for sending e-mail messages between servers. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified and the message text is transferred. The configuration page is shown as follows:



Two sets of SMTP accounts can be configured. Each set includes SMTP Server, Account Name, Password and E-mail Address settings. For SMTP server, contact your network service provider for more specific information.

FTP

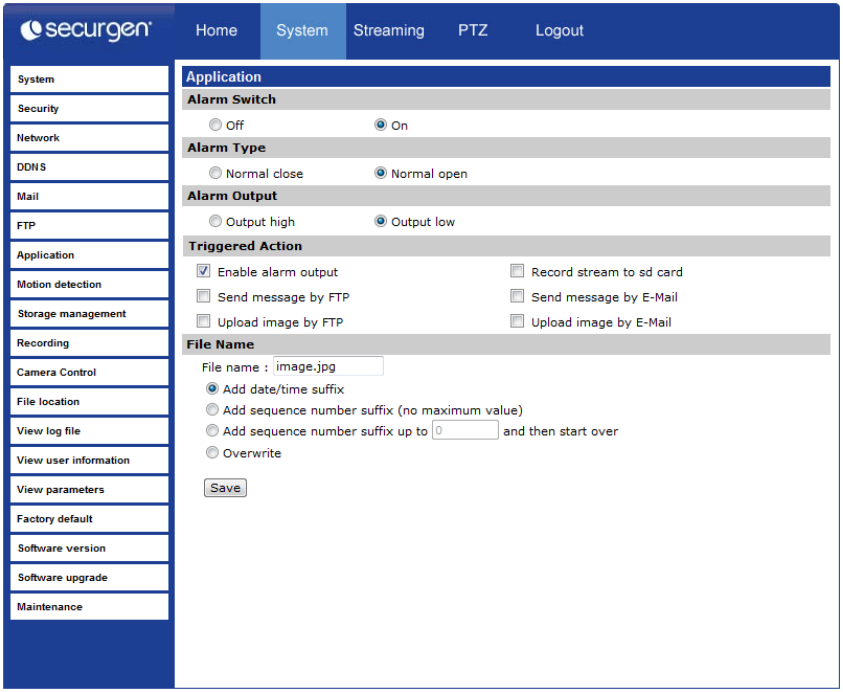
The network device can send alarm message to a specific File Transfer Protocol (FTP) site when motion is detected or when the sensor input is activated. You can assign alarm message to up to two FTP sites.



- Enter the FTP details, which include server, server port, user name, password and remote folder, in the appropriate boxes and click **Save** when finished.

Application (Alarm Settings)

The video server is equipped with one alarm input and one alarm output to connect to an alarm system to capture alarm images and notify an Securgen recorder. Make sure the alarm connections are properly wired before configuring alarm related settings on the Application screen.



Alarm Switch

- **Alarm Switch** – Enable or disable the alarm function.
- **Alarm Type** – Select an alarm type, **Normally closed** or **Normally open**, that corresponds with the alarm application.
- **Alarm Output** – Define the alarm output signal as low (normally open) or high (normally closed).

Triggered Action

Specify alarm actions that will take place when the alarm is triggered.

- **Enable Alarm Output** – Select this option to activate the alarm output.

- **Send Message by FTP/E-Mail** – Select to send an alarm message to the configured FTP and/or E-Mail when an alarm event occurs.
- **Upload Image by FTP** – Select to assign an FTP site. When the alarm is triggered, event images will be uploaded to the configured FTP site.
- **Upload Image by E-Mail** – Select to assign an e-mail address. When the alarm is triggered, event images will be sent to the configured e-mail address.

Note Make sure SMTP or FTP configuration has been completed. See the Mail and FTP section of this manual for further details.

File Name

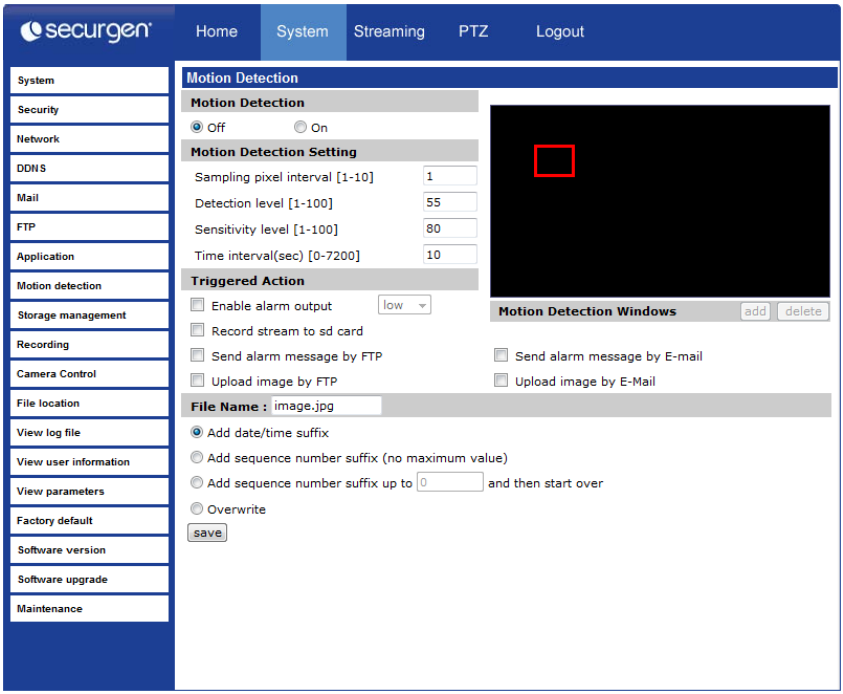
Enter a file name in the box, ex. image.jpg. The uploaded image's file name format can be set in this section. Please select the one that meets your requirements.

- Add **date/time suffix**
  File name: imageYYMMDD_HHNNSS_XX.jpg
  Y: Year, M: Month, D: Day
  H: Hour, N: Minute, S: Second
  X: Sequence Number
- **Add sequence number suffix (no maximum value)**
  File name: imageXXXXXXX.jpg
  X: Sequence Number
- **Add sequence number suffix (limited value)**
  File Name: imageXX.jpg
  X: Sequence Number

  The file name suffix will end at the value entered in this box. For example, if the setting is up to "10," the file name will start from 00, end at 10, and then start all over again.
- **Overwrite** - The original image on the FTP site will be overwritten by the new uploaded file with a static filename.

Motion Detection

Motion Detection allows the video server to detect motion and trigger alarms when motion in the detected area exceeds the determined sensitivity threshold value.



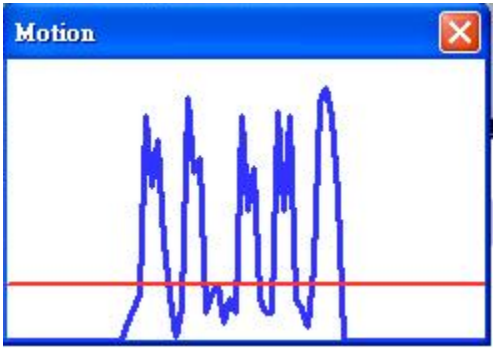
In the Motion Detection page, there is a motion detection window (red box) displayed on the Live View Pane. The Motion Detection window defines the motion detection area. To change the size of the Motion Detection window, drag the edge of the frame to resize.

You can add up to 10 motion detection windows.

- Click **add** under the Live View Pane to add a Motion Detection window.
- To delete a Motion Detection window, use the mouse to select the frame and click **delete**.

When motion detection is activated, the **Motion** pop-up window will open.

When motion is detected, the signals will be displayed on the Motion window as shown below.



Motion Detection

Turn motion detection on or off. The default setting is Off.

Motion Detection Setting

- **Sampling pixel interval [1-10] –** Default value is 10, which means system will take one sampling pixel for every 10 pixels.
- **Detection level [1-100]** – Default detection level is 10. This item sets the detection level for each sampling pixel; the smaller the value, the more sensitive it is.
- **Sensitivity level [1-100] –** The default sensitivity level is 80, which means if 20% or more sampling pixels are detected as changing, the system will detect motion. The bigger the value, the more sensitive it is. As the sensitivity value is increased, the red horizontal line in the motion indication window will be lowered accordingly.

- **Time interval (sec) [0-7200]** – The default interval is 10. The value is the interval between each detected motion event.

Triggered Action

You can specify which actions the network device should take when motion is detected.

- **Enable Alarm Output** – Select this option to activate the alarm output.
- **Send Message by FTP/E-Mail** – Select to send an alarm message to the configured FTP and/or E-Mail when an alarm event occurs.
- **Upload Image by FTP** – Select to assign an FTP site. When the alarm is triggered, event images will be uploaded to the configured FTP site.
- **Upload Image by E-Mail** - Select to assign an e-mail address. When the alarm is triggered, event images will be sent to the configured e-mail address.

Note Make sure SMTP or FTP configuration has been completed. See the Mail and FTP section of this manual for further details.

File Name

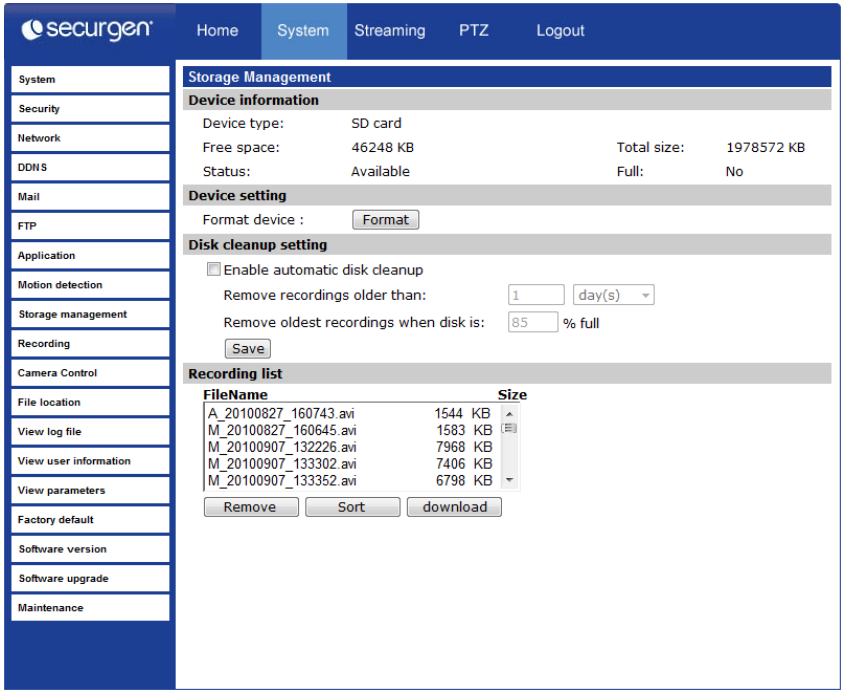
Enter a file name in the box, ex. image.jpg. The uploaded image's file name format can be set in this section. Please select the one that meets your requirements.

- Add **date/time suffix**
  File name: imageYYMMDD_HHNNSS_XX.jpg
  Y: Year, M: Month, D: Day
  H: Hour, N: Minute, S: Second
  X: Sequence Number
- **Add sequence number suffix (no maximum value)**
  File name: imageXXXXXXX.jpg
  X: Sequence Number
- **Add** sequence **number suffix (limited value)**
  File Name: imageXX.jpg
  X: Sequence Number

  The file name suffix will end at the value entered in this box. For example, if the setting is up to "10," the file name will start from 00, end at 10, and then start all over again.
- **Overwrite** - The original image on the FTP site will be overwritten by the new uploaded file with a static filename.

Storage Management

The video server has an integrated microSD™ card slot that can be used to record video or images. The card slot is compatible with a microSD™ card up to 4GB (not included).



Device Information – Displays the storage total size and free space information of the included microSD™ card.

Device Setting – Allows you to format the microSD card.

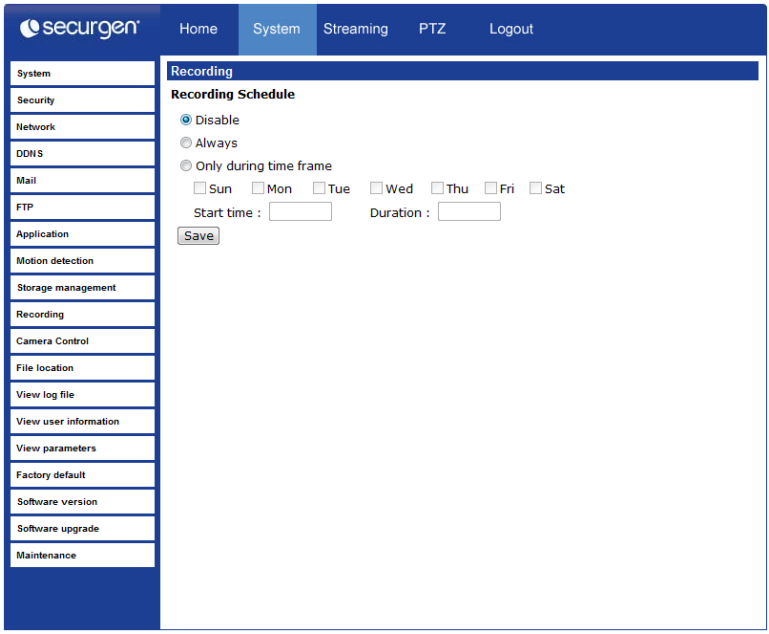
Device Cleanup Setting – Use this feature to enable overwrite settings on the SD card. The network device can remove files from the card after they reach a certain age, or when the card is a certain percent full.

Recording List – Displays a list of files saved to the card. You can delete files from the card, or save them to your local PC.

Note If you are using Windows Vista or 7, you will need to change the Snapshot location. Windows UAC does not allow internet programs to write directly to C:\ for security reasons.

Recording

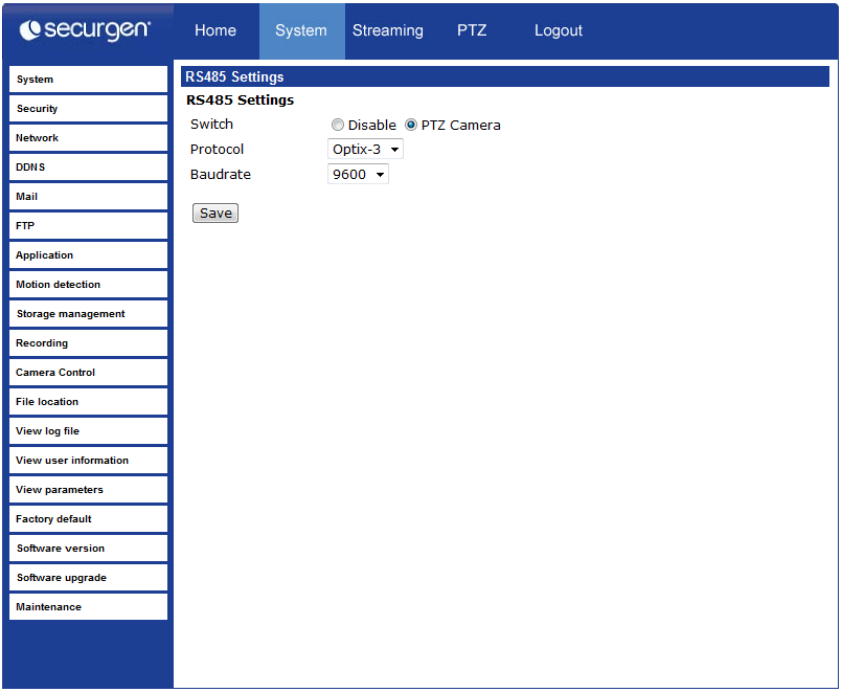
The recording schedule allows you to set up scheduled recording to the microSD™ card.



Recording Schedule – The video server can be set up to record continuously until the card is full (or overwrite old data, see the Storage Management section). The network device can also be set up to record only during a scheduled time. Select the days that you would like to record, then input the recording start time and the recording duration.

Camera Control

When connecting a PTZ camera to the RS-485 control, use the camera control page to set up the camera information. Enable the **PTZ Camera** control, select a **protocol** and **baud rate**. The video server is compatible with OpenEye OPTIX 1, OPTIX 3, Pelco P and Pelco D control protocols.

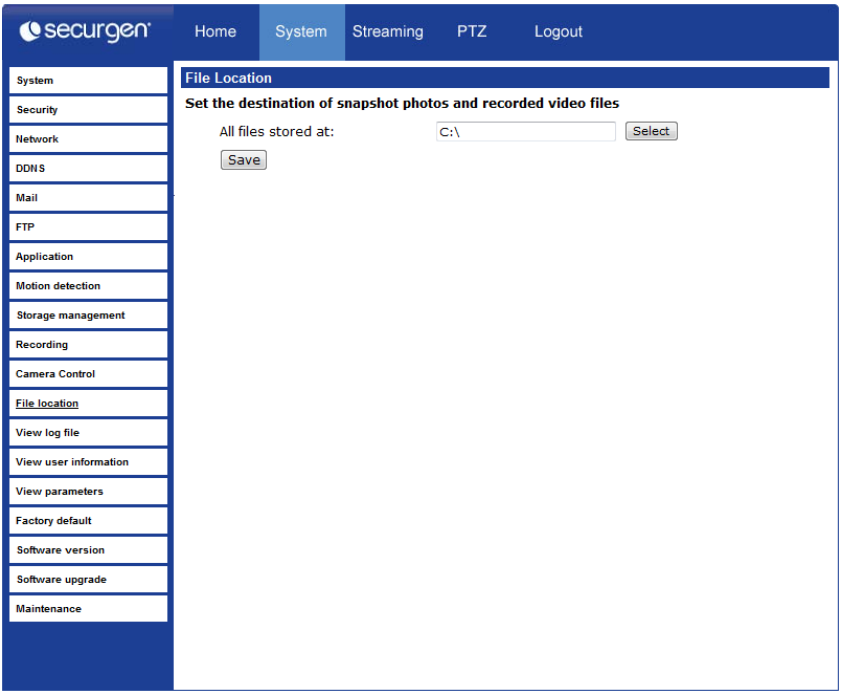


File Location

The video server supports a JPEG snapshot and AVI recording function. You can specify a storage location for the saved files. The default setting is: C:\.

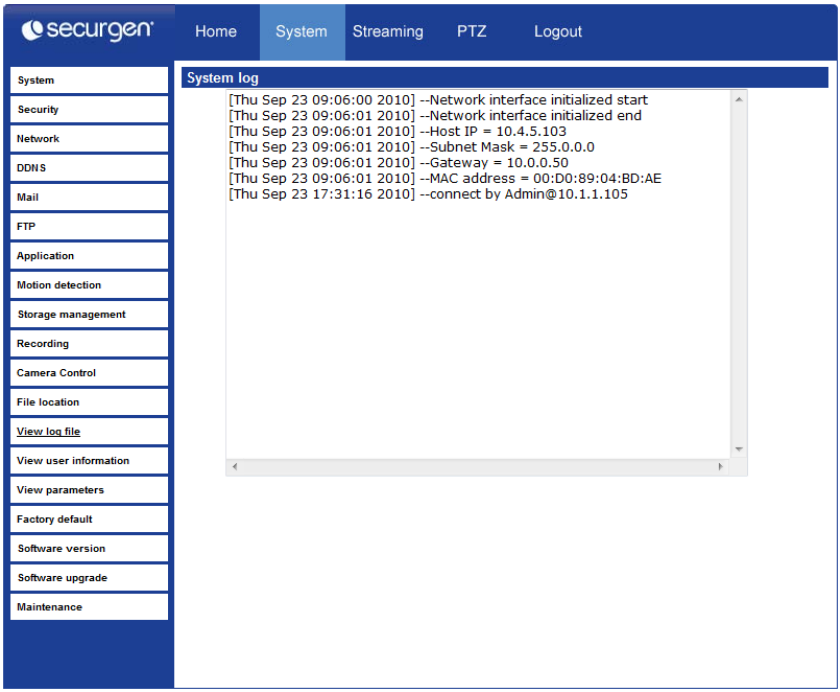
Note If you are using Windows Vista or 7, you must change the File Location. Windows UAC does not allow internet programs to write directly to C:\ for security reasons.

Note Make sure the selected file path contains valid characters such as letters and numbers.



View Log File

Click **View Log File** to view the system log file. The content of the file provides useful information about configuration and connections.

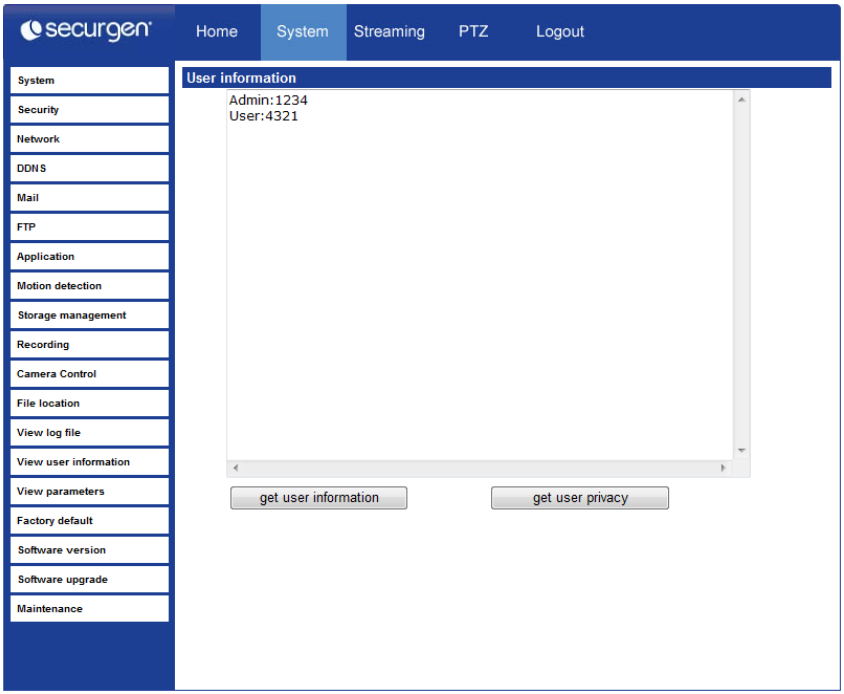


View User Information

The Administrator can view each user's login information and privileges on the **View User Information** page

View User Login Information

All users for the video server are listed under **User information**. The example below shows that the Admin password is 1234 and there is one user with the username User and the password 4321.

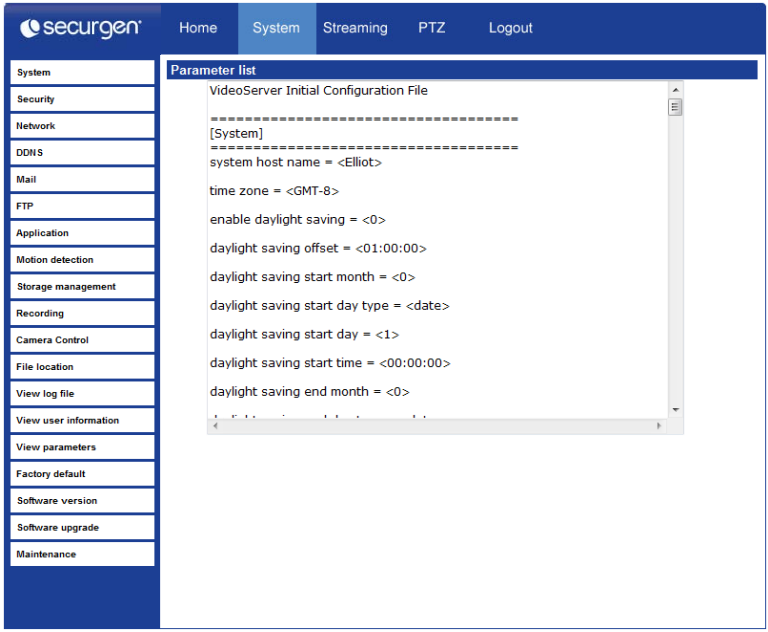


View User Privilege

Select a user account from the list and click **get user privacy** to view the permissions for the user account.

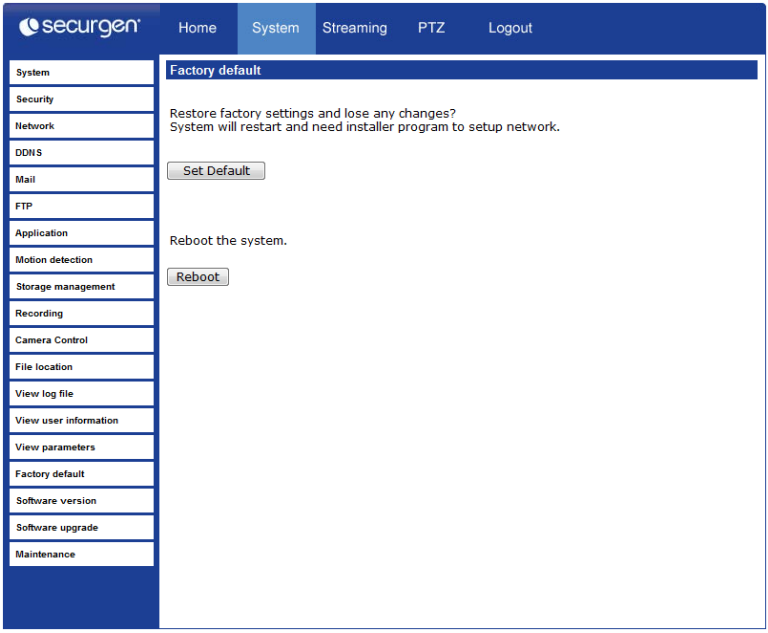
View Parameters

Click **View Parameters** to view the system parameter settings.



Factory Default

Use the factory default page to reset the video server to factory default setting if necessary.



Set Default

Click **Set Default** to reset the network device to the factory default settings The system will restart in 30 seconds.

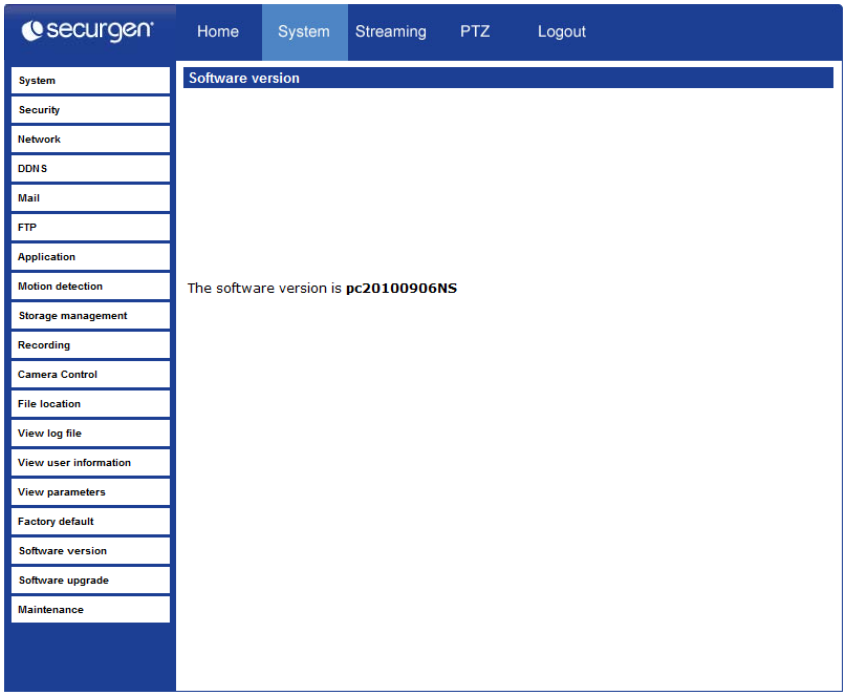
Note The IP address will be restored to default IP address.

Reboot

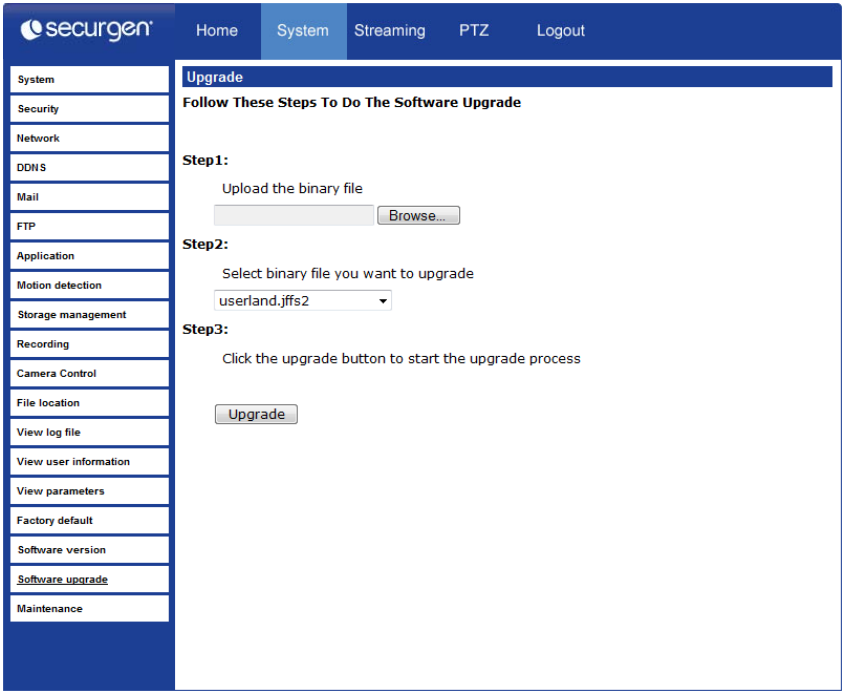
Click **Reboot** to restart the network device without changing the current device settings.

Software Version

The Software Version page displays the current software version.



Software Upgrade



Upgrading the Video Server Viewer Software

Note Make sure the new firmware file is available before starting a software upgrade. Do not change the file name, or the system will not be able to update to the new firmware.

1. Click **Browse** and find the upgrade file.
2. Select the file name from the list under **Step 2**.
3. Click **Upgrade**. The system will check to find the upgrade file, and then start to upload the upgrade file. The upgrade status bar will display on the page. When it reaches 100%, the upgrade process is finished.

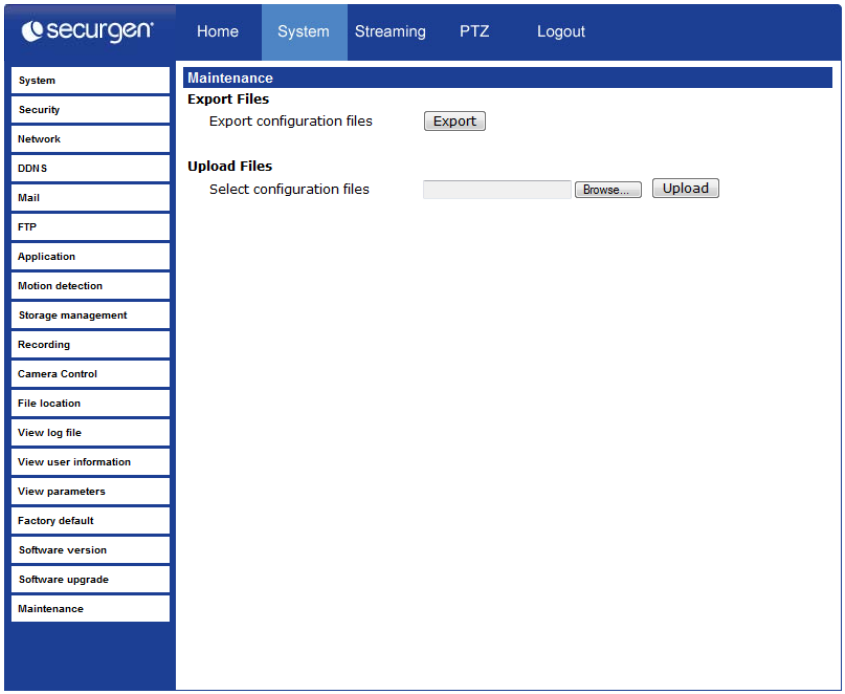
   When the upgrade process is complete the viewer will return to Home page.
4. Close the internet browser.
5. Go to the **Windows Control Panel** and double-click **Add or Remove Programs**. Locate the **Camera Viewer** software on the **Currently installed programs** list, and click **Remove** to uninstall the previous software version.

6. Open the internet browser again and log in to the network device. The system will automatically download the new version of the Camera Viewer software.

Maintenance

Export the current configuration of the video server or import a configuration.

Note Do not import the configuration from a different Securgen IP device.

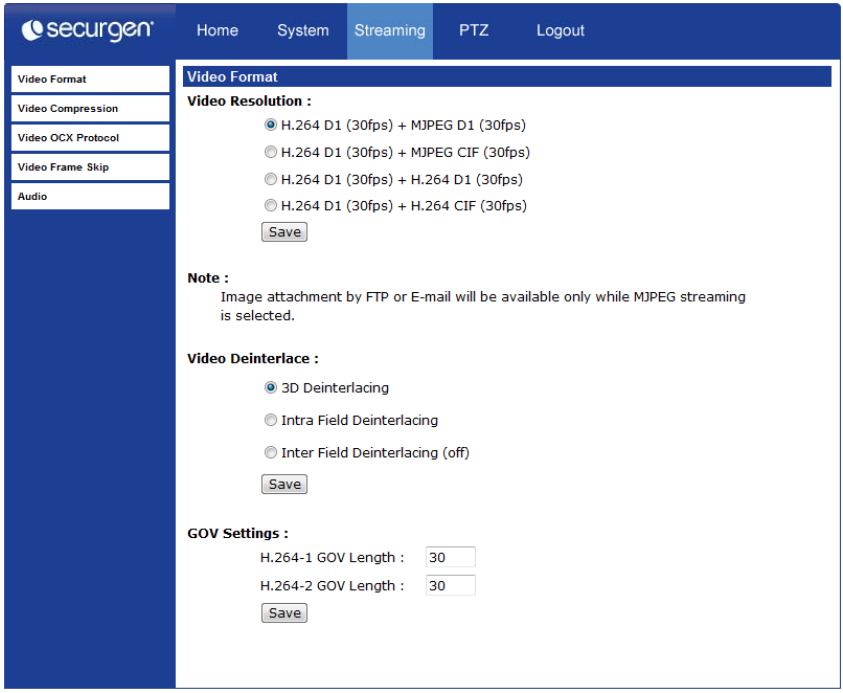


Video and Audio Streaming Settings

On the Streaming tab, you can configure specific video resolution, video compression mode, video protocol, and audio transmission mode.

Video Format

Select the desired video resolution for the video server on the Video Format page. The DVR will record video based on the resolution selected here.



Video Resolution – The video server provides two sets of video dual streaming formats like the following:

- H.264 D1 (30fps) + MJPEG D1 (30fps)
- H.264 D1 (30fps) + MJPEG CIF (30fps)

Note When using H.264 + MJPEG, the MJPEG stream is always handled by the device as stream 1 and the H.264 stream is stream 2.

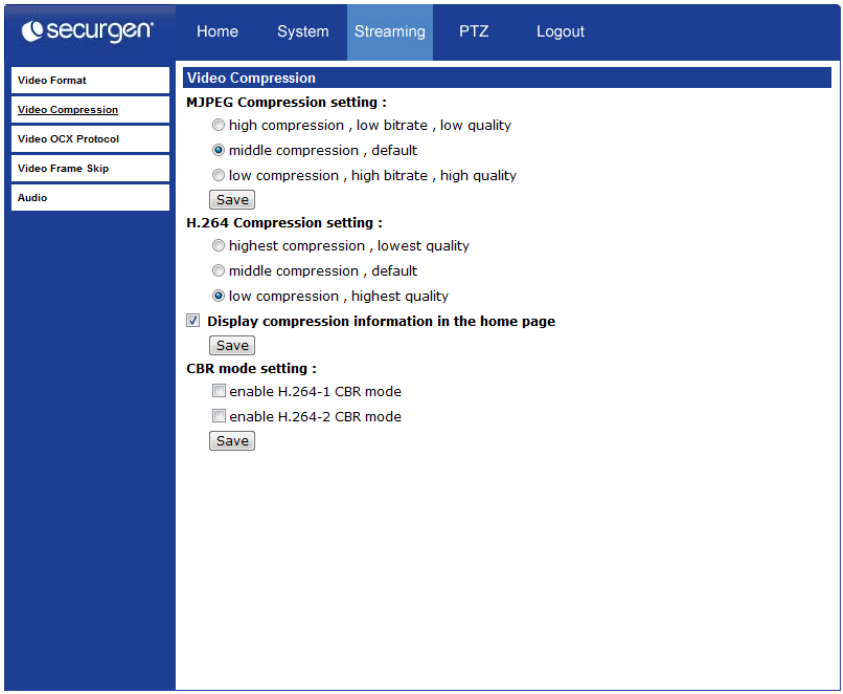
Video Deinterlace – The video server supports de-interlacing. You can choose to activate the de-interlacing function or disable the function by selecting a mode from the list as shown below:

- Inter Field Deinterlacing (off)
- Intra Field Deinterlacing

GOV Settings – Sets the Group of Video (GOV) or Group of Pictures (GOP) length for the H.264 streams. Use this to increase bandwidth if necessary.

Video Compression

Select an MJPEG/H.264 compression mode appropriate for the application. You can also select to display compression information on the Home page.



MJPEG compression settings:

- high compression, low bitrate, low quality
- middle compression, default
- low compression, high bitrate, high quality

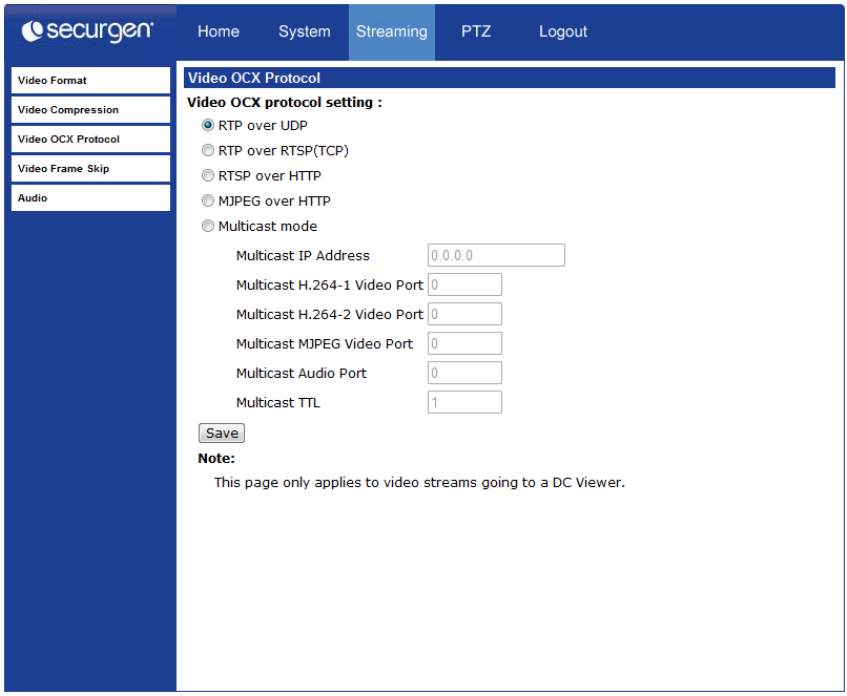
H.264 compression settings:

- Highest compression, lowest quality

- Middle compression, default
- Low compression, highest quality

Video OCX Protocol

On the Video OCX protocol page, you can select different protocols for streaming media over the network.



Video OCX protocol setting options include:

- RTP over UDP
- RTP over RTSP(TCP)
- RTSP over HTTP
- MJPEG over HTTP

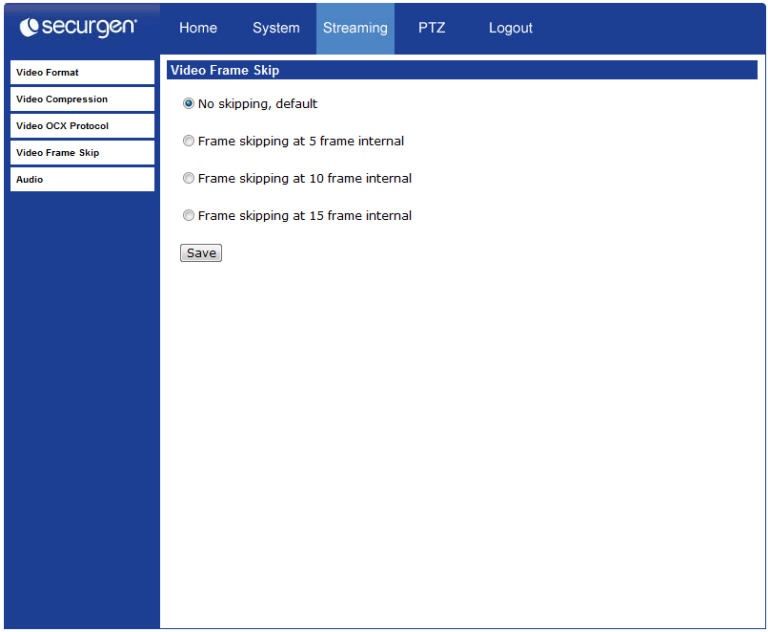
Select a mode according to your data delivery requirements. If you are transmitting over the internet using a router and port forwarding, you will need to use RTP over RTSP (UDP). You will also need to forward the RTSP port to the network device (see the network setup page to find the RTSP port).

Multicast Mode

1. Enter all required data, including multicast IP address, H.264 video port, MJPEG video port, audio port and TTL into each box.
2. Click **Save** to confirm the setting.

Video Frame Skip

Use video frame skipping to save bandwidth if necessary.



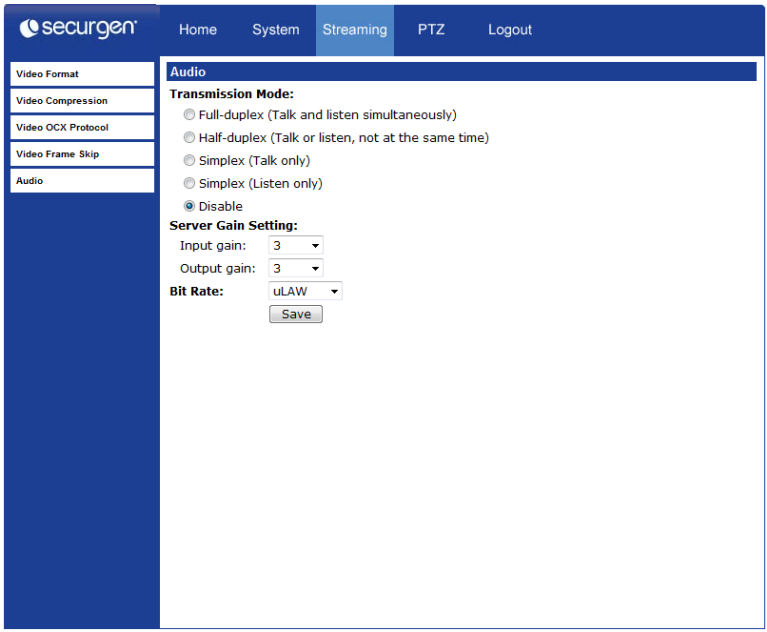
MJPEG/H.264 Frame Skipping options include:

- No skipping, default
- Frame skipping at 5 frame internal
- Frame skipping at 10 frame internal
- Frame skipping at 15 frame internal

Note Higher frame skipping rate will decrease video smoothness.

Audio

The audio setting page is show as below. In the Audio page, the Administrator can select one transmission mode and audio bit rate.

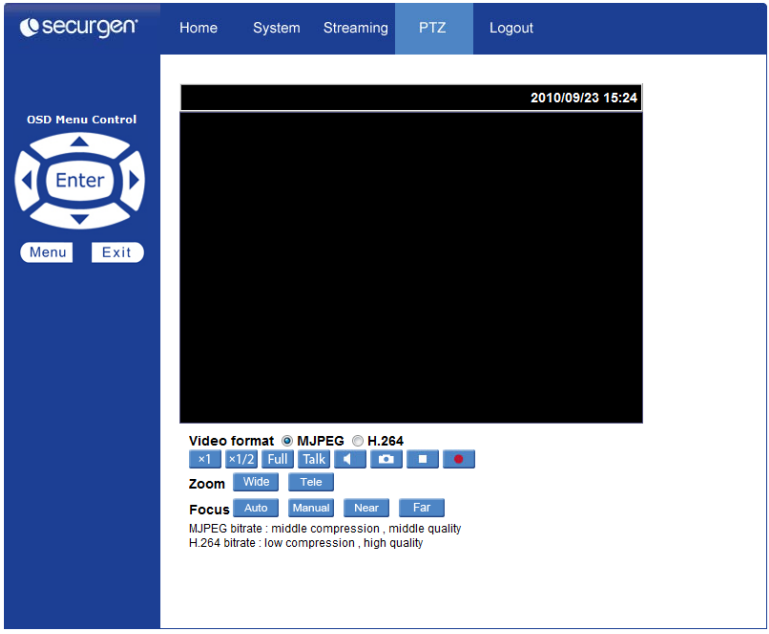


Transmission Mode

- **Full-duplex (Talk and Listen simultaneously)** – In Full-duplex mode, the local and remote sites can communicate with each other simultaneously, i.e. both sites can speak and be heard at the same time.
- **Half-duplex (Talk or Listen, not at the same time**) – In Half-duplex mode, the local/remote site can only talk or listen to the other site at a time.
- **Simplex (Talk only)** – In Talk only Simplex mode, the local/remote site can only talk to the other site
- **Simplex (Listen only)** - The local/remote site can only listen to the other site.
- **Disable** - Turn off the audio transmission function.

PTZ Settings

Use the PTZ tab to program a PTZ camera using the on screen menu of the camera.



OSD Menu

Click Menu to open the OSD menu of the camera, then use the arrow and enter buttons to navigate the camera menu.

Logout

Click the **Logout** tab to open the login window and log in with a different user name and password.

SPECIFICATIONS

VIDEO SERVER SPECIFICATIONS

Model	NE-VS201
Video Input	1CH BNC
Video Output	1CH BNC loop out
Compression	H.264 / MJPEG
Dual Streaming	H.264 + H.264 / H.264 + MJPEG
Resolution	NTSC: 720 x 480 / PAL: 720 x 576
Frame Rate	NTSC: 30IPS @ D1 / PAL: 25IPS @ D1
Motion Detection	Yes
Audio Inputs	1
Audio Outputs	1
Audio Streaming	Full-duplex, Half-duplex, Simplex
Audio Compression	G.711 / G.726
Alarm Input	1
Alarm Output	1
Network	10/100 Ethernet
Web Connection	IE (ActiveX)
User Accounts	20
User Levels	Administrator or User
Connections	TCP/UDP/IP, HTTP, FTP, SMTP, ARP, ICMP, DHCP, Telnet, RTP/RTSP
PTZ Control	RS-485
PTZ Protocols	Pelco D, Pelco P, Optix III, Optix I
Operational Temp	14°F ~ 122°F (-10°C ~ 50°C)
Active/Passive Cooling	Passive Cooling
Power Consumption	4.2W
Rated Amperage	< 350mA
Input Voltage	12vDC / PoE
Weight	0.44 lbs (0.2kg)
Dimensions	L: 5.39" (137mm) x W: 3.9" (99mm) H: 1.1" (28mm)
Housing	White / Blue
Voltage Out	12vDC
Power Out	6W
Max Current	500mA

Recommended Application	Fixed Dome Cameras. Do not use to power more than one other device.

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