

Mini NVR & Graphite NVR

Operation start guide
Web browser

DOMAR.com

Table of contents

[CHAPTER 1. Connecting to NVR using Internet Explorer](#)

[Default Settings](#)

[Downloading OCX](#)

[Login in to the NVR](#)

[Using different web Browser](#)

[CHAPTER 2. Basic settings](#)

[Common settings](#)

[Setting up time](#)

[Manual time](#)

[Synchronization with computer time](#)

[Synchronization with SNTP server](#)

[General time settings](#)

[Other common settings](#)

[Network](#)

[User](#)

[Modifying users](#)

[Adding a new user](#)

[Delete user](#)

[Modify existing user](#)

[Modifying groups](#)

[Adding new group](#)

[Delete group](#)

[Modify existing group](#)

[CHAPTER 3. Adding cameras](#)

[CHAPTER 4. Mobile view - P2P](#)

[CHAPTER 5. Recording & Playback](#)

[Installing & formatting Hard Drive](#)

[Record setup](#)

[Playback](#)

[Downloading files](#)

[Recording on computer](#)

[CHAPTER 6. Motion detection](#)

[Setting up motion detection](#)

[Recording alarm](#)

[SMTP alarm](#)

[FTP alarm](#)

[Cloud storage alarm](#)

[CHAPTER 7. Connecting from different network](#)

[Port forwarding](#)

[UPnP](#)

[DDNS](#)

CHAPTER 8. Troubleshooting

[Log](#)

[Reboot & Auto Reboot](#)

[Formatting hard drive](#)

[Reset to defaults](#)

[Checking firmware version & update](#)

CHAPTER 1. Connecting to NVR using Internet Explorer

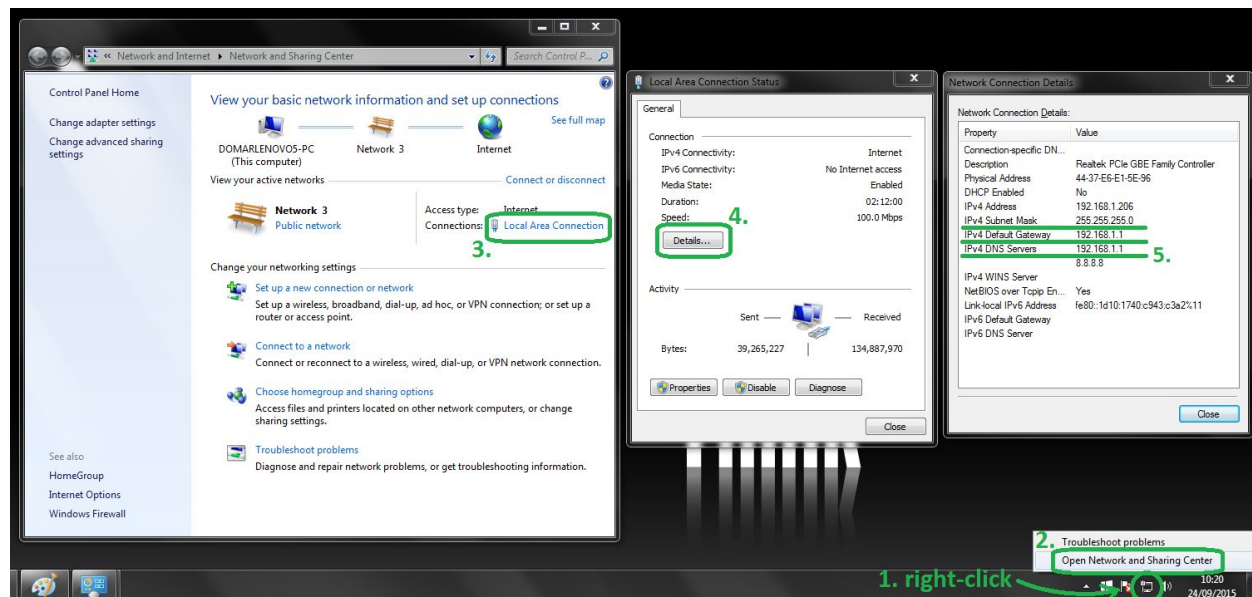
1. Default Settings

As a default recorder have a specific options that we need to verify before we can do anything else. First we have to look what network settings we have on the recorder. To do it please do as follow.

NOTE: If you planing to use this system as a **stand alone system** please skip part when you are checking your router settings.

● First we need to check what is your current network settings.

1. Please right click on your Internet Connection icon
2. Choose “Open Network and Sharing Center”
3. Look for you Internet connection and click on it.
4. New window will show up. Click “Details” button on middle left.
5. Three lines are very important here. Please make a note of your Internet settings. We need to know what is a “IPv4 Default Gateway” “and IPv4 DNS Servers”



- Second we need to check if your network settings are matching your recorder.

NOTE: If you planing to use this system as a stand alone system please skip part when you have to match network to your router. All you need to know is what is your IP address on the recorder.

1. Plug NVR to the power and connect one end of ethernet cable at the back of the record and second end to the router or switch (Switch need to be plug in to your router)



2. Run "IPC Search Tool" on your PC/Laptop.

NOTE: If you don't have it on your desktop please make sure you will install it on your PC/Laptop. You can download this software here: [IPC Search Tool](#)

3. Click "Search" and wait for results.
4. Click on your recorder. All details will show up on right hand side of software.
5. Now we need to make sure that settings match. Please compare it your router settings.
 - a. Third digit of the IP address need to match of the third digits on your router gateway settings.
 - b. Check if this number is matching your router
 - c. Check if the DNS number is matching your router
6. Enter your password.
7. Click on "Modify" to confirm your changes.
8. You should see small window with a text "Modify Success"

| Index | Model | Device Name | Firmware Version | IP address | Subnet Mask | GateWay | DNS |
|-------|----------|----------------|-----------------------|---------------|---------------|-------------|-------------|
| 1 | NVR | NVR | NVR_HI3520D_8_v6.1... | 192.168.1.11 | 255.255.255.0 | 192.168.1.1 | 192.168.1.1 |
| 2 | IPCAM | | | 192.168.1.30 | 255.255.255.0 | 192.168.1.1 | |
| 3 | IPCAM | | | | | | |
| 4 | IPCAMERA | IPC | S2L33M_IMX322_X_6... | | | 192.168.1.1 | 192.168.1.1 |
| 5 | IPCAMERA | MZXparking | S2L55M_IMX124_X_5... | | | 192.168.1.1 | 192.168.1.1 |
| 6 | IPCAMERA | MZXwejsiecp... | S2L55M_IMX124_X_5... | | | 192.168.1.1 | 192.168.1.1 |
| 7 | IPCAMERA | MZXbiuro3 | 3518C_IMX225_X_5.1... | | | 192.168.1.1 | 192.168.1.1 |
| 8 | IPCAMERA | IPC | 3518C_IMX225_X_6.1... | | | 192.168.1.1 | 192.168.1.1 |
| 9 | IPCAMERA | MZXbiuro1 | 3516A_IMX178_X_5.1... | | | 192.168.1.1 | 192.168.1.1 |
| 10 | IPCAMERA | IPC | S2L33M_IMX322_X_5... | | | 192.168.1.1 | 192.168.1.1 |
| 11 | IPCAMERA | MagStol1 | S2L33M_IMX322_X_5... | | | 192.168.1.1 | 192.168.1.1 |
| 12 | IPCAMERA | MagRampa1 | S2L33M_IMX322_X_5... | 192.168.1.103 | 255.255.255.0 | 192.168.1.1 | 192.168.1.1 |
| 13 | IPCAMERA | MagDrzwi | S2L33M_IMX322_X_5... | 192.168.1.104 | 255.255.255.0 | 192.168.1.1 | 192.168.1.1 |
| 14 | IPCAMERA | MagStol2 | S2L33M_IMX322_X_12... | 192.168.1.105 | 255.255.255.0 | 192.168.1.1 | 192.168.1.1 |
| 15 | IPCAMERA | MagRampa2 | S2L55M_IMX124_X_5... | 192.168.1.106 | 255.255.255.0 | 192.168.1.1 | 192.168.1.1 |
| 16 | IPCAMERA | MagKorytarz | S2L55M_IMX124_X_5... | 192.168.1.107 | 255.255.255.0 | 192.168.1.1 | 192.168.1.1 |

Ver. 6.1.4.2 ☐ Onvif MultitudeNetmask 3. Search

Modify Success

Edit Upgrade

IP Address: 192.168.1.11
 Subnet Mask: 255.255.255.0
 GateWay: 192.168.1.1
 DNS: 192.168.1.1
 HTTP Port: 80
 RTSP Port: 554
☐ DHCP Enable
 Username: admin
 Password:
7. Modify

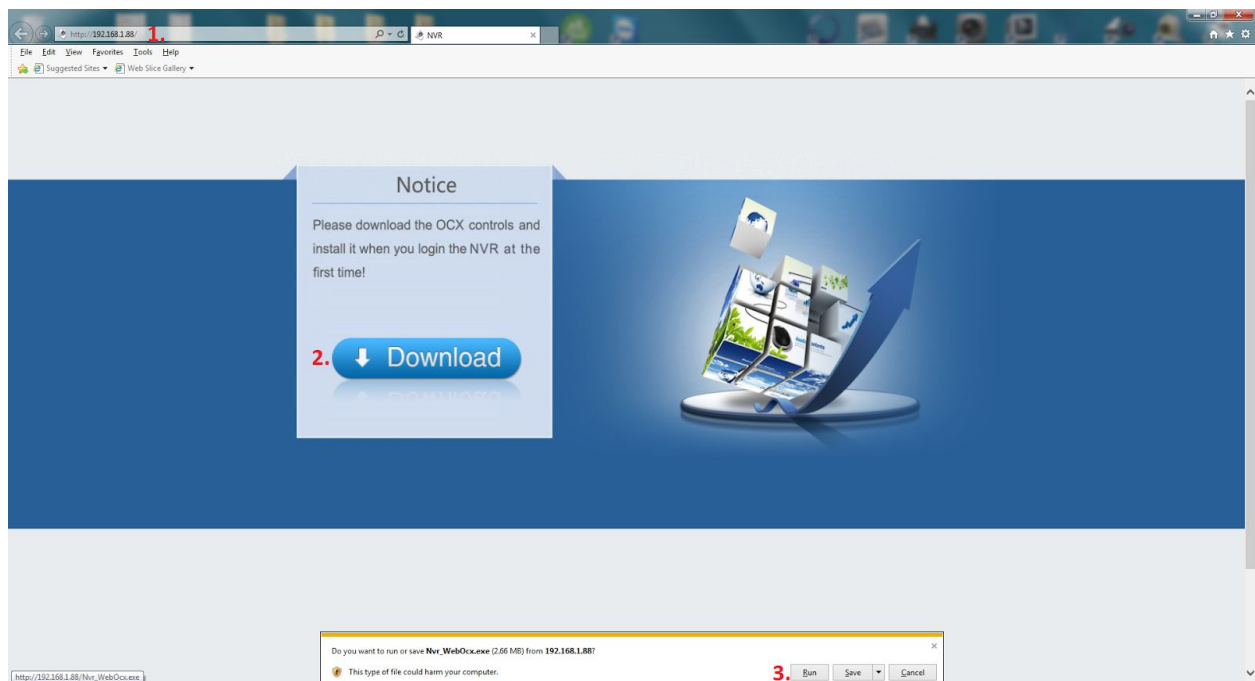
2. Downloading OCX

To connect to your NVR from browser you have to know what is IP address of your recorder. If you don't know it you can check it on IPC Search Tool. Simply "Search" for your device, choose it from the list and on the right hand side of the software you will see full IP address.

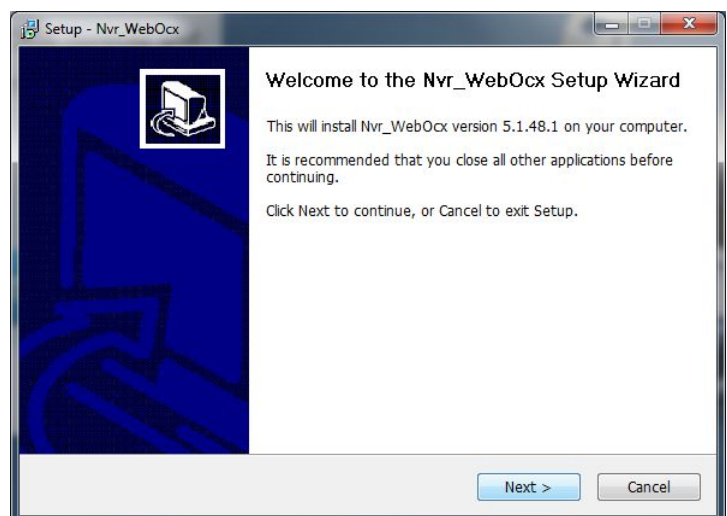
NOTE: * To be able to connect to your recorder please use Internet Explorer Browser:

* If you are using **Windows 10** please note that this system as a default is using "**Edge**" Browser. Please make sure you are running "**Internet Explorer**" Browser.

1. First you need to run Internet Explorer Browser on your PC/Laptop and enter IP address on the address bar of browser.
2. Click on big download button to start downloading OCX
3. If an information bar appear on the bottom of the browser please make sure you will click "Run"



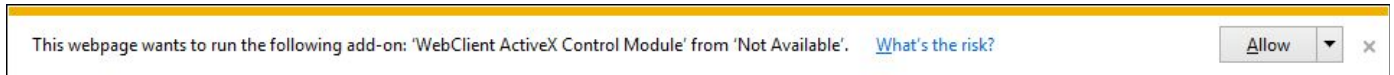
4. When you click run you should see a new installation window. Please proceed through the installation process.



3. Login in to the NVR

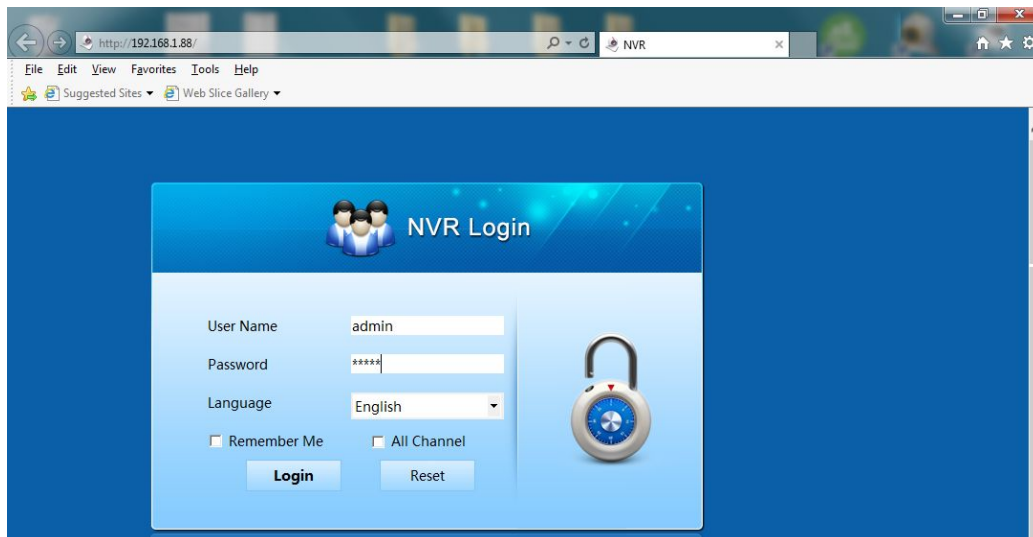
Again we need to run Internet Explorer Browser and type in IP address of the recorder in address bar.

NOTE: If you still have big Download button please have a look if the information bar appears at the bottom. Please click on a small down arrow and choose **“Allow to all websites”**

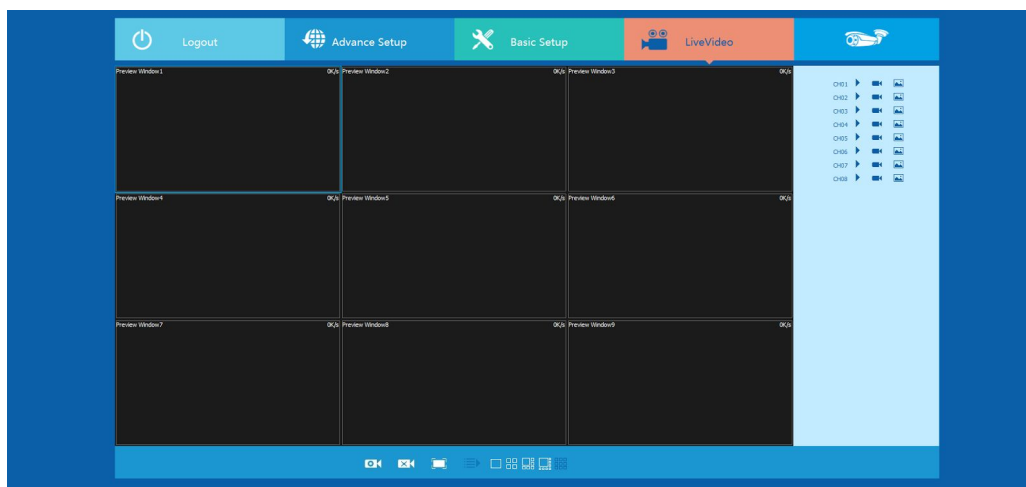


1. You should be able to see “NVR Login” box on your Internet Explorer Browser
2. Enter your Username and password for you recorder:

NOTE: As a default username and password is: **“admin”** and **“12345”**



3. If you managed to login to your recorder you should see picture like one below.



4. Using different web Browser

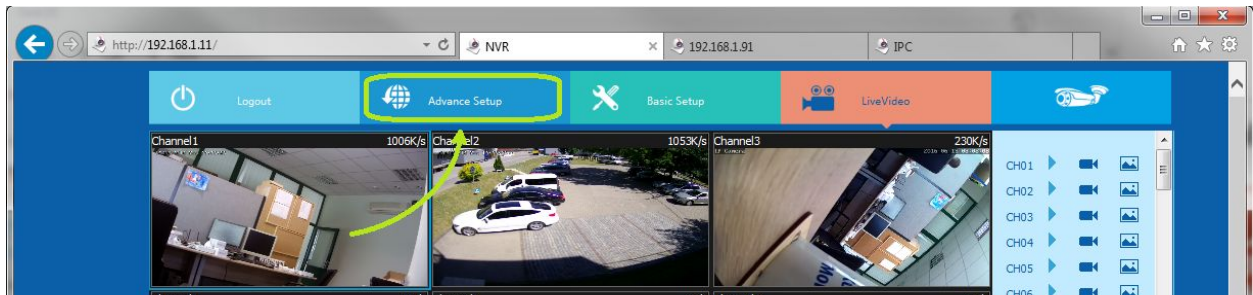
Unfortunately this system is only compatible with a **Internet Explorer Browser**. However there is a way to walk around it by using an extensions on a few browsers. Extensions is called “**IETab**” and it can be downloaded from your browser.

NOTE: This system is not compatible with a Mac web browser.

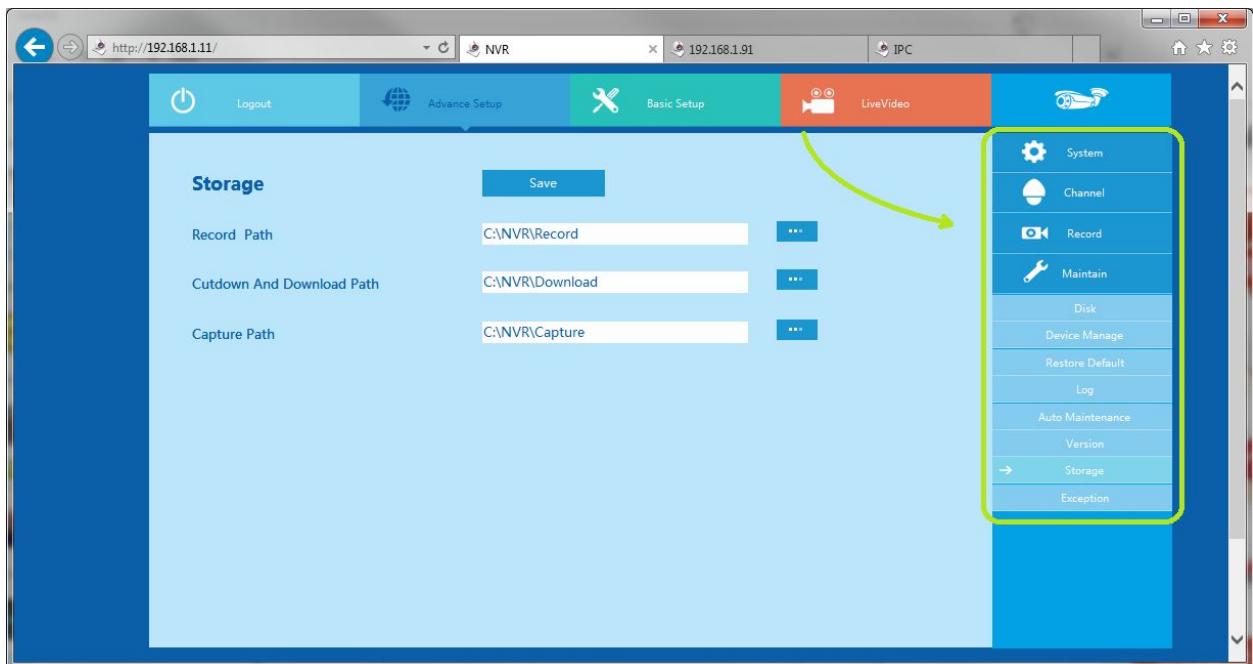
CHAPTER 2. Basic settings

1. Common settings

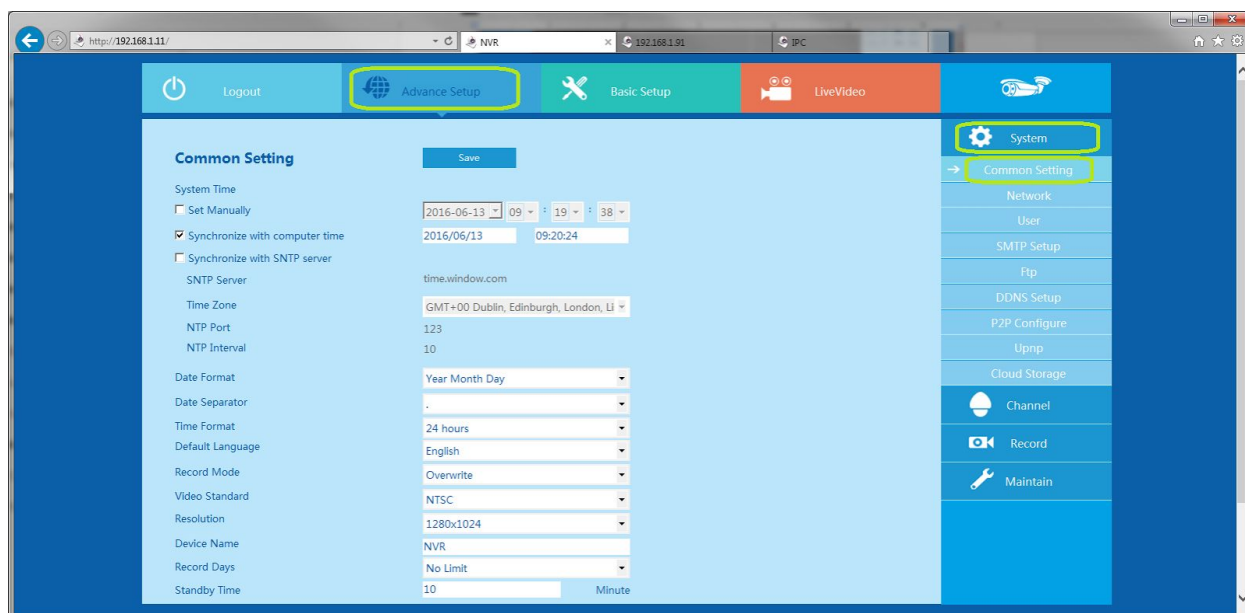
To access settings of the NVR click on an **Advance Setup** button after logging in.



This option will take you straight to NVR settings. On the right side you'll find a menu providing more options:



For common settings click on the **System** menu and then choose **Common Setting**.



1.1. Setting up time

NVR time can be set up using 3 different options: manual time setting, synchronizing time with the the computer and synchronizing time with SNTP server.

A. Manual time

Select (tick box) **Set Manually** option, choose a date using datepicker, change fields on the right site containing **hours : minutes : seconds**, press **Save** button.



B. Synchronization with computer time

Select (tick box) **Synchronize with computer time** option and press **Save** button. NVR will be set to match your computer date and time.

| | | |
|--|------------|----------|
| <input checked="" type="checkbox"/> Synchronize with computer time | 2016/06/13 | 09:25:33 |
|--|------------|----------|

C. Synchronization with SNTP server

Select (tick box) **Synchronize with SNTP server** option, choose the **Time Zone**, a **NTP Server**, **NTP Port** and **NTP Interval**, press **Save** button.

| | |
|--|--|
| <input checked="" type="checkbox"/> Synchronize with SNTP server | |
| SNTP Server | time.nist.gov |
| Time Zone | GMT+00 Dublin, Edinburgh, London, Li ▼ |
| NTP Port | 123 |
| NTP Interval | 30 |

Examples of most common SNTP servers are: *time.windows.com* (port: 123), *time.nist.gov* (port: 123), *europe.pool.ntp.org* (port: 123) and *pool.ntp.org* (port: 123).

Value in **NTP Interval** indicates after what time (in minutes) NVR time will be synchronized with the server.

D. General time settings

Date Format - choose a date display order: *Year Month Day*, *Month Day Year*, *Day Month Year*.

Date Separator - choose a character separating days, months and year in displayed date.

Time format - choose if date should be displayed in a *24 hours* or in a *12 hours* mode.

1.2. Other common settings

Default Language - allows you to choose what language will be displayed as default when NVR starts, in menus and windows.

Record Mode - *Overwrite* option means that when NVR runs out of free space on a hard drive, it will automatically make room for a new recording by erasing the oldest files.

Video Standard - choose either *PAL* or *NTSC* encoding. *NTSC* is the standard broadcast format in the United States, while *PAL* is the standard broadcast format in Europe, Australia, and parts of Asia. Choose the one that match screen you're connecting to the NVR.

Resolution - choose a resolution matching screen you're connecting to the NVR, depending on a NVR model you'll see a few to choose from: 1920x1080 ,1280x1024, 1280x720, 1280x768.

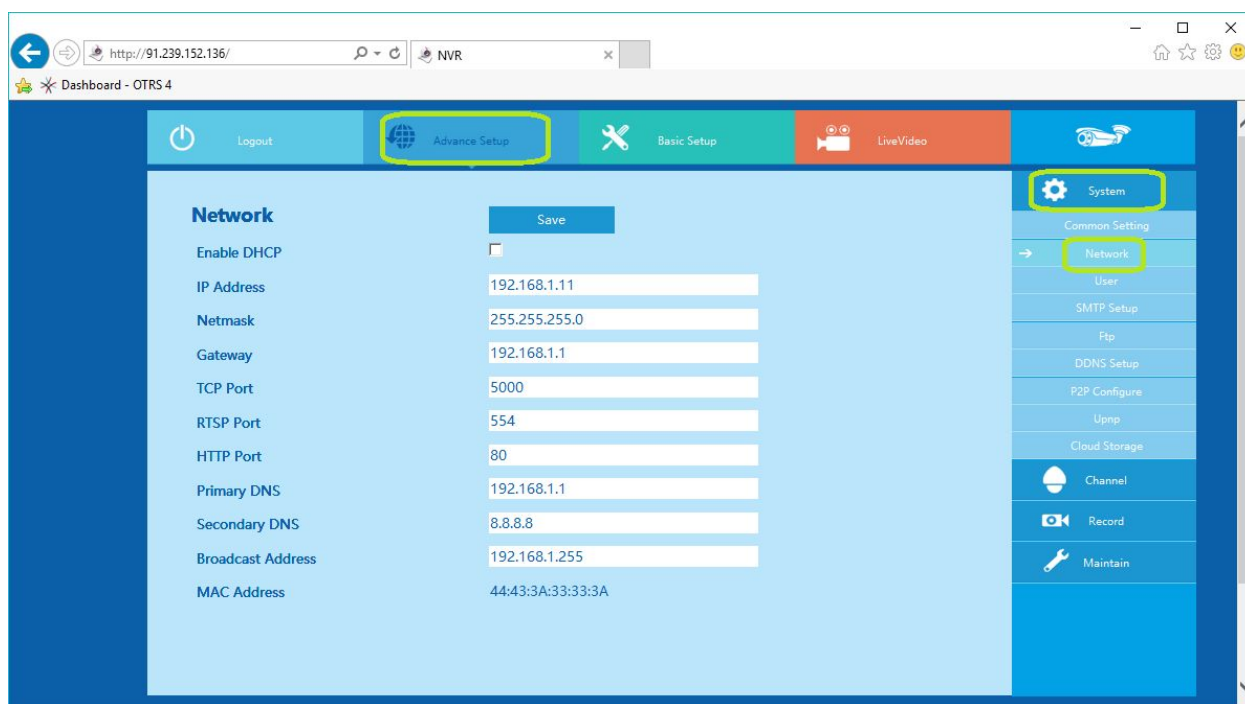
Device name - device name that will be displayed for the other network devices like routers.

Record Days - using this option you can restrict how many days of recorded footage will be kept on the NVRs hard drive.

Standby Time - time (in minutes) after which NVR will log you out. After this time NVR will display login window when accessing recorder menu.

2. Network

To access network settings of the NVR click on **Advanced Setup**, then choose **System** and **Network** from menu on the right side.



Enable DHCP - DHCP mode enable NVR to acquire network settings from the router it's connected to. Don't use this option if you're planning a stand alone system.

IP Address - each device in your network should have a different IP address, matching subnetwork of your router. For stand alone systems you can use any IP address you want as long as NVR and cameras match the same subnetwork.

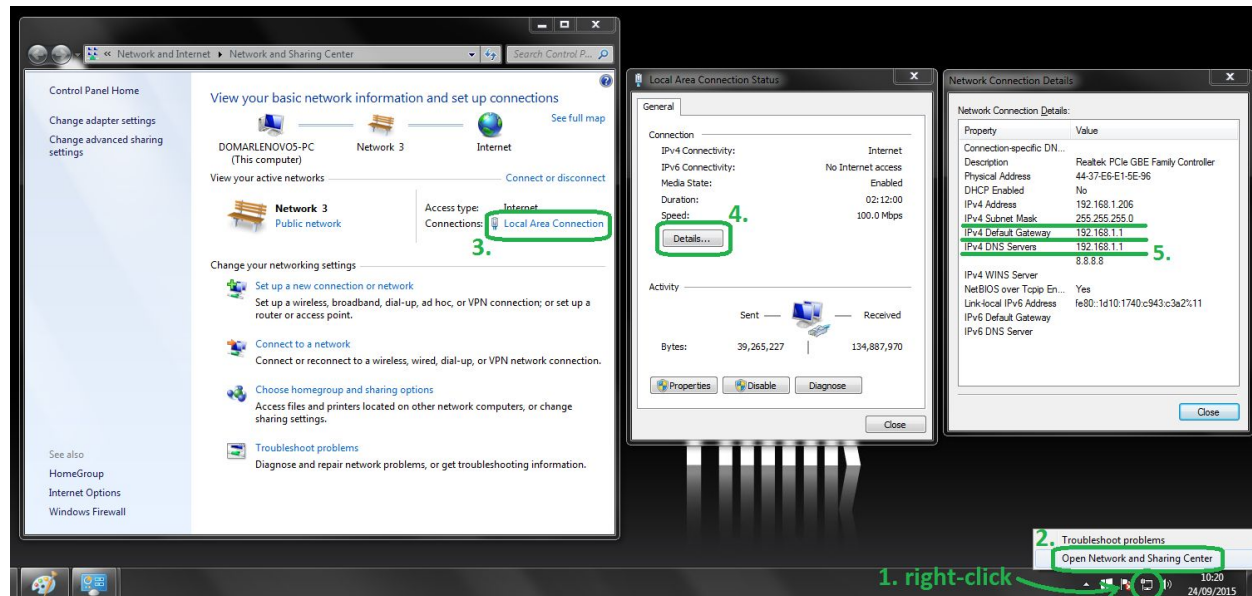
General rule: 3 first numbers in **IP Address** should be the same as router IP address (default gateway), last number should be different for each device and can be anything from range 1-254.

Example: router - **192.168.0.1**, NVR - **192.168.0.200**, camera 1 - **192.168.0.201**, camera 2 - **192.168.0.202**

Netmask - usually 255.255.255.0, change it if your router use different settings.

Gateway - your router IP address (default gateway).

You can find your router IP address, subnet mask and other network settings using your computer:



TCP Port - port no. used for streaming playback.

RTSP Port - port no. used for streaming live view video.

HTTP Port - port no. used for remote access from web browsers.

If you change this port no., address to access NVR from web browser will change. Instead of <http://IP address/> use <http://IP address:HTTP port no./>.

Example: use <http://192.168.1.88:8080/> if HTTP port was changed to 8080.

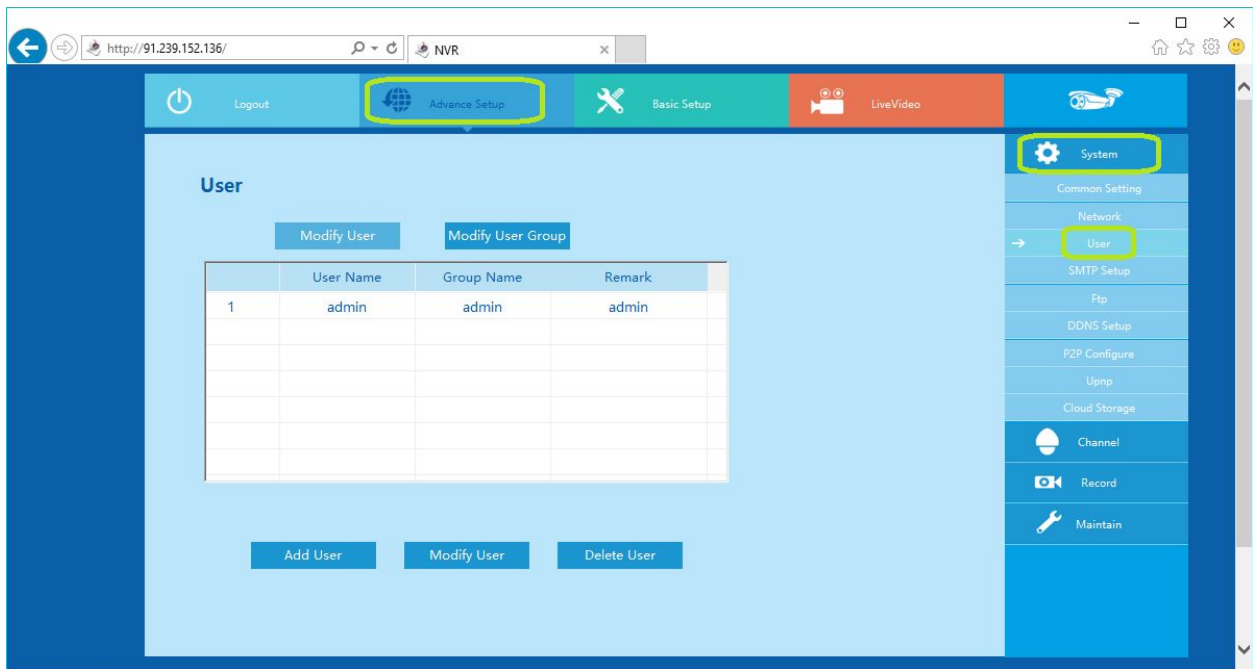
Primary DNS - your router IP address (default gateway).

Secondary DNS - will be used when Primary DNS is not responding, most commonly used is Google DNS: 8.8.8.8.

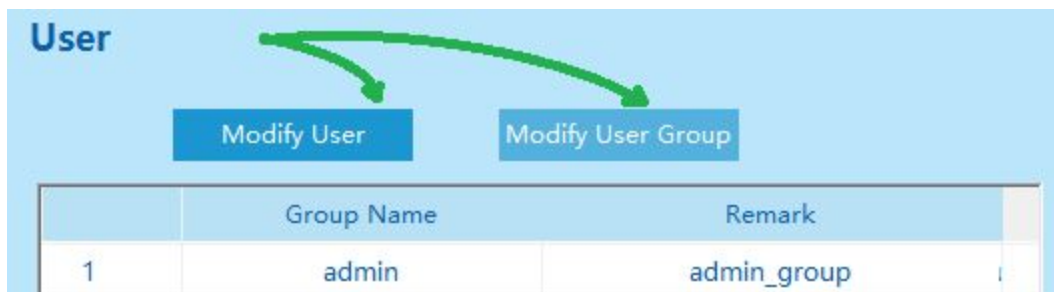
Broadcast Address - broadcast IP address of your network. Usually 3 first numbers should be the same as router IP address (default gateway), last number should be 255.

3. User

To access user settings of the NVR click on **Advanced Setup**, then choose **System** and **User** from menu on the right side.

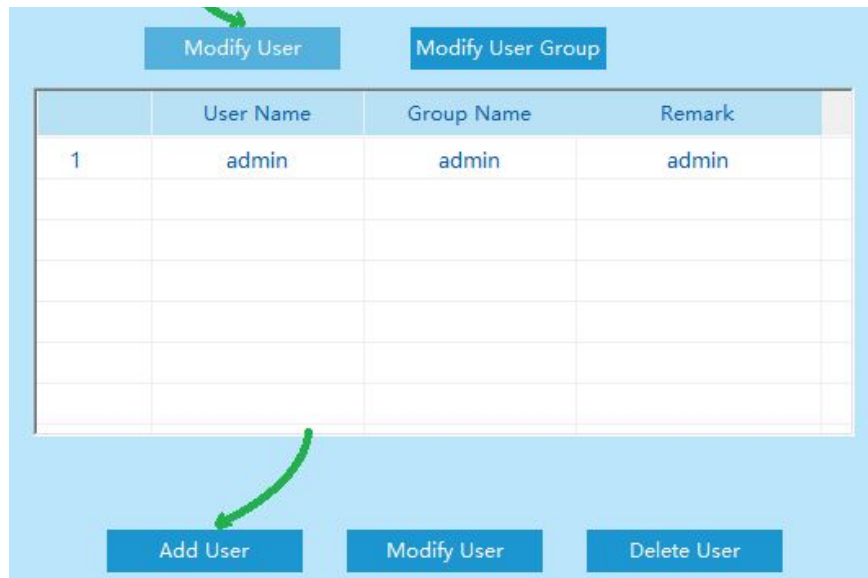


Here you can add, delete and modify users and user groups. By clicking **Modify User** and **Modify User Group** you can switch between two modes - managing users or groups:



2.1. Modifying users

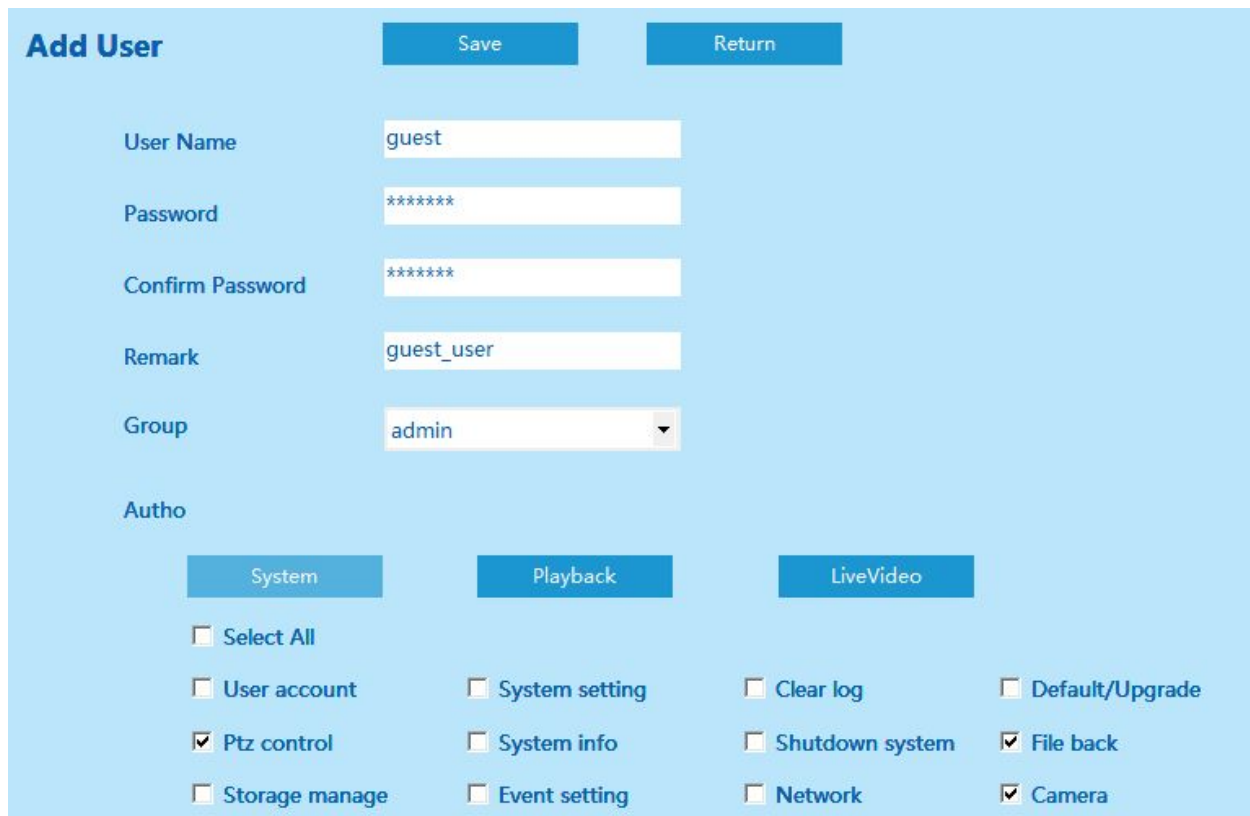
A. Adding a new user



The screenshot shows a user management interface. At the top, there are two buttons: 'Modify User' and 'Modify User Group'. Below them is a table with the following columns: 'User Name', 'Group Name', and 'Remark'. The table contains one row with the values 'admin', 'admin', and 'admin' respectively. Below the table, there are three buttons: 'Add User', 'Modify User', and 'Delete User'. A green arrow points from the 'Add User' button to the 'Modify User' button.

| | User Name | Group Name | Remark |
|---|-----------|------------|--------|
| 1 | admin | admin | admin |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Choose **Modify User** section and click **Add User** button.



The screenshot shows the 'Add User' form. It has a title 'Add User' and two buttons: 'Save' and 'Return'. The form contains the following fields:

- User Name: guest
- Password: *****
- Confirm Password: *****
- Remark: guest_user
- Group: admin (dropdown menu)

Below the form, there is a section titled 'Autho' with three tabs: 'System', 'Playback', and 'LiveVideo'. Under the 'System' tab, there are several checkboxes:

- ☐ Select All
- ☐ User account
- ☒ Ptz control
- ☐ Storage manage
- ☐ System setting
- ☐ System info
- ☐ Event setting
- ☐ Clear log
- ☐ Shutdown system
- ☐ Network
- ☐ Default/Upgrade
- ☒ File back
- ☒ Camera

Decide **User Name** and **Password** for new user. **Remark** is a description displayed in user table and can be left empty.

You can also choose to which group newly created user will be assigned to. By default there's only one group - admin with authorization to use all NVR functions. You can restrict access to different options and functions for this user by selecting and deselecting them in **System** section under **Autho**. You can also choose which channel newly created user will be able to watch and playback.

Autho

System Playback LiveVideo

☐ Select All

☒ 1 ☒ 2 ☒ 3 ☒ 4 ☒ 5 ☒ 6 ☒ 7 ☒ 8

B. Delete user

| | User Name | Group Name | Remark |
|---|-----------|------------|---------|
| 1 | admin | admin | admin |
| 2 | guest | admin | guest_1 |
| 3 | monika | admin | guest_2 |
| | | | |
| | | | |
| | | | |

Add User Modify User Delete User

To remove user from NVR system select row with chosen username and press **Delete User** button. Be careful - NVR will erase user without asking second time.

User **admin** can not be deleted by default.

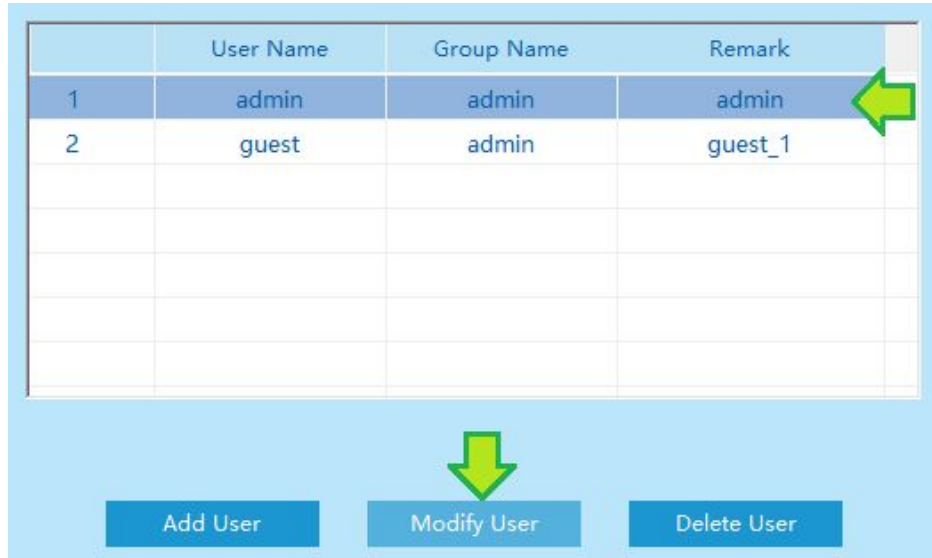
C. Modify existing user

| | User Name | Group Name | Remark |
|---|-----------|------------|---------|
| 1 | admin | admin | admin |
| 2 | guest | admin | guest_1 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Add User

Modify User

Delete User



To change existing user select row with chosen username and press **Modify User** button.

Modify User

Save

Return

User Name

guest

☒ Modify password

Old Password

User Name

guest

New Password

Group

Guests

Confirm Password

Remark

guest_1

Autho

System

Playback

LiveVideo

☒ Select All

☐ User account

☐ System setting

☐ Clear log

☐ Default/Upgrade

☒ Ptz control

☐ System info

☐ Shutdown system

☒ File back

☐ Storage manage

☐ Event setting

☐ Network

☒ Camera

You can change **User Name** for selected user, assign user to a different group, change **Remark** and restrict access to NVR functions. You can also change user password by selecting **Modify password** box.

2.2. Modifying groups

A. Adding new group



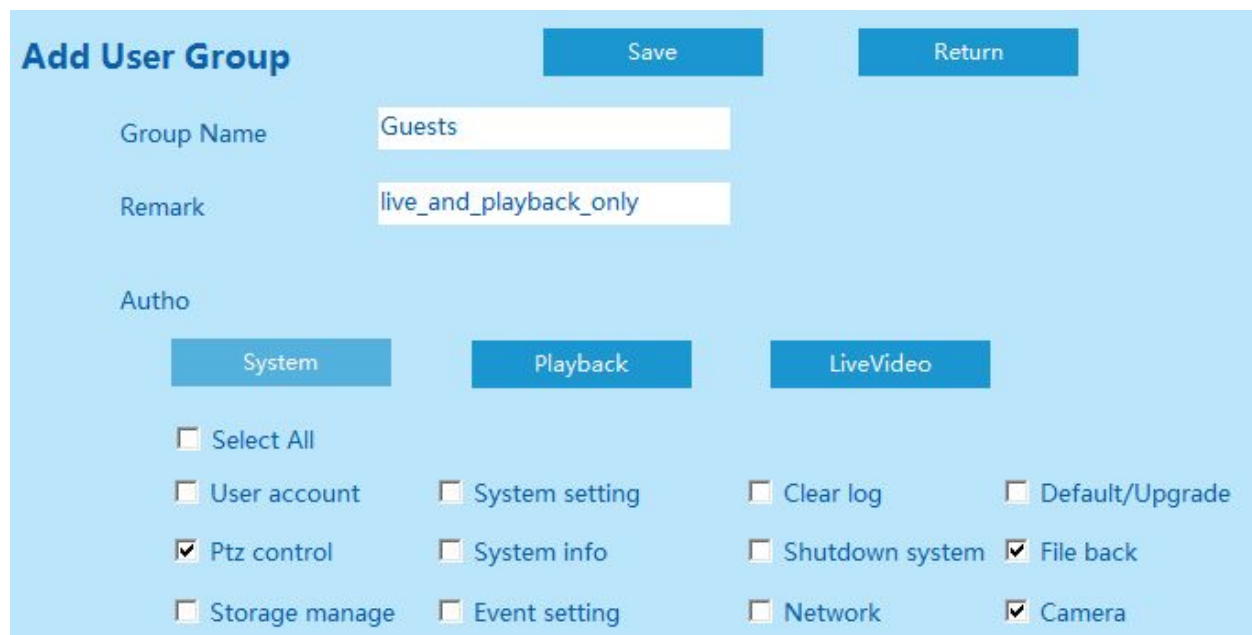
User

Modify User **Modify User Group**

| | Group Name | Remark |
|---|------------|-------------|
| 1 | admin | admin_group |
| | | |
| | | |
| | | |
| | | |
| | | |

Add User Group Modify User Group Delete User Group

To create new group select **Modify User Group** section and click **Add User Group** button.



Add User Group Save Return

Group Name:

Remark:

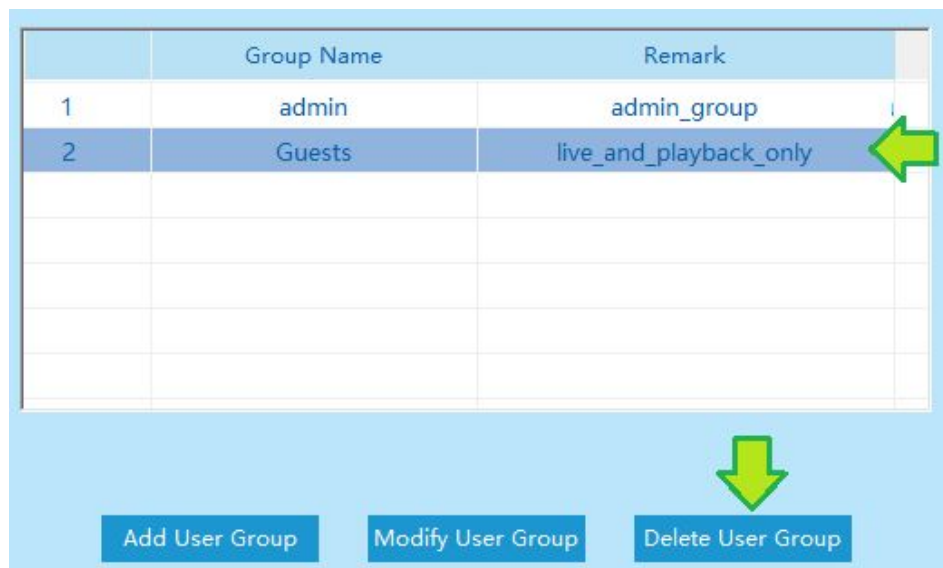
Autho

☐ Select All

| | | | |
|---|---|--|---|
| <input type="checkbox"/> User account | <input type="checkbox"/> System setting | <input type="checkbox"/> Clear log | <input type="checkbox"/> Default/Upgrade |
| <input checked="" type="checkbox"/> Ptz control | <input type="checkbox"/> System info | <input type="checkbox"/> Shutdown system | <input checked="" type="checkbox"/> File back |
| <input type="checkbox"/> Storage manage | <input type="checkbox"/> Event setting | <input type="checkbox"/> Network | <input checked="" type="checkbox"/> Camera |

Choose **Group Name** and **Remark** (comment) and select NVR functions to which this group should have access to. You can choose from three categories: **System**, **Playback** and **LiveVideo**. Every user assigned to this group will only get access to functions enabled for this group or less - if you restrict this user authorization level in **Modify User** section.

B. Delete group



To remove group from NVR system select row with chosen group name and press **Delete User Group** button. Be careful - NVR will erase user without asking second time.

Group **admin** can not be deleted by default. Also NVR won't allow you to delete group which still have user assigned.

C. Modify existing group

| | Group Name | Remark |
|---|------------|------------------------|
| 1 | admin | admin_group |
| 2 | Guests | live_and_playback_only |
| | | |
| | | |
| | | |
| | | |
| | | |

Add User Group

Modify User Group

Delete User Group

To change existing user select row with chosen username and press **Modify User** button.

Modify User Group

Save

Return

Group

Guests

Group Name

Guests

Remark

live_and_playback_only

Autho

System

Playback

LiveVideo

☐ Select All

☐ User account

☐ System setting

☐ Clear log

☐ Default/Upgrade

☒ Ptz control

☐ System info

☐ Shutdown system

☒ File back

☐ Storage manage

☐ Event setting

☐ Network

☒ Camera

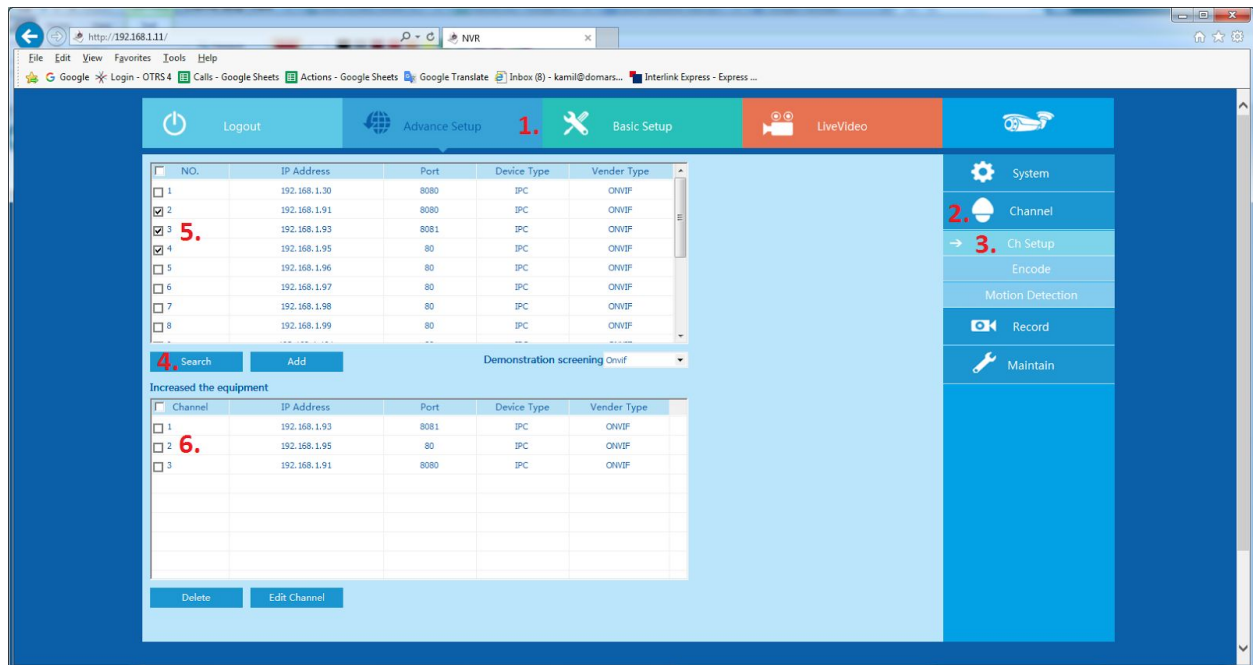
Here you can change **Group Name** and **Remark** (comment) for selected group and restrict access to the NVR functions for group users.

CHAPTER 3. Adding cameras

Now we will add cameras to our system.

- Adding camera on a Channel Setup:

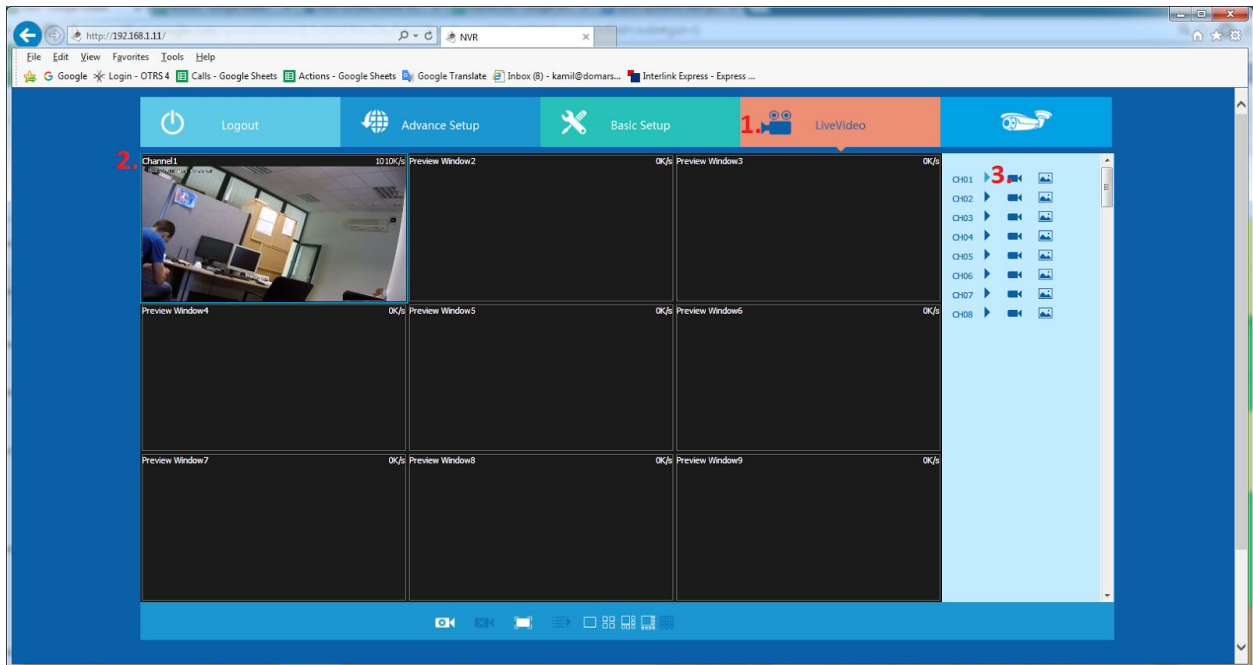
1. First, go to “Advance Setup”
2. Click on “Channel” from right hand side
3. Choose “Ch Setup”
4. Click “Search” to find cameras.
5. Select your cameras and click “Add”
6. If you done it successfully they should appear on the bottom table.



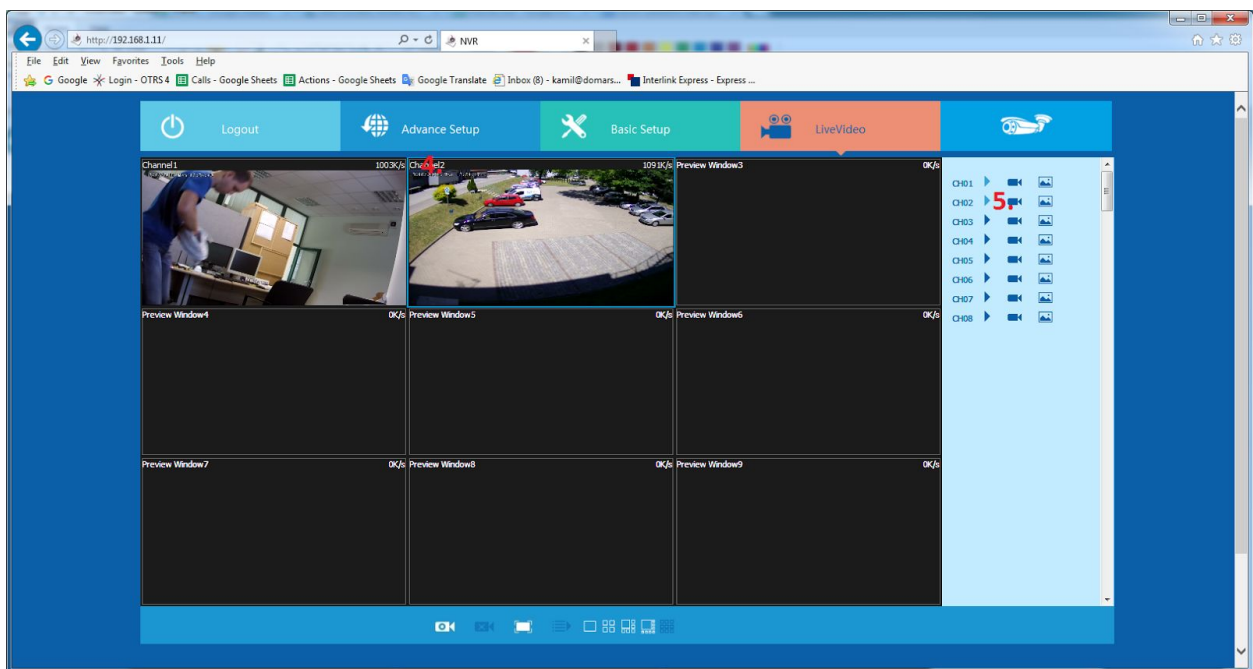
- Live view - camera one by one

To be able to view your live footage please do as follow:

1. Click on “LiveVideo”
2. Select “Preview Window 1”
3. Click play icon beside “CH01” from right hand side menu



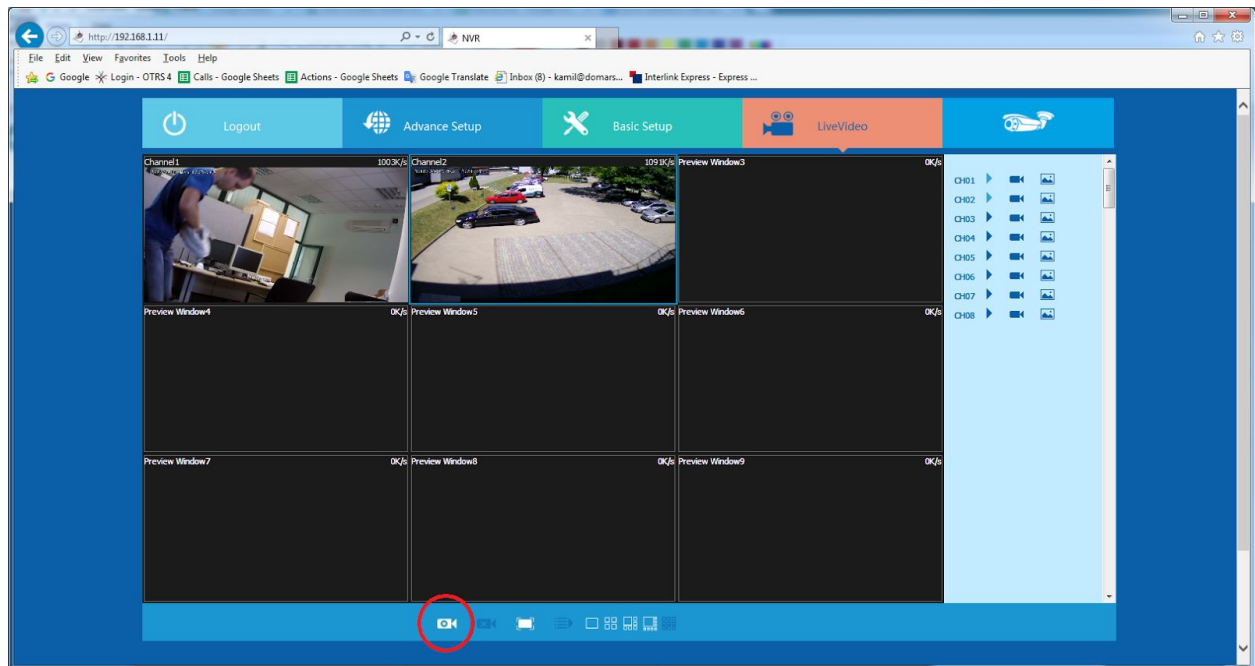
4. To view second camera please select "Preview Window 2"
5. Press play icon beside "CH02"



Repeat the process if you have more cameras.

- Live view - all cameras at once

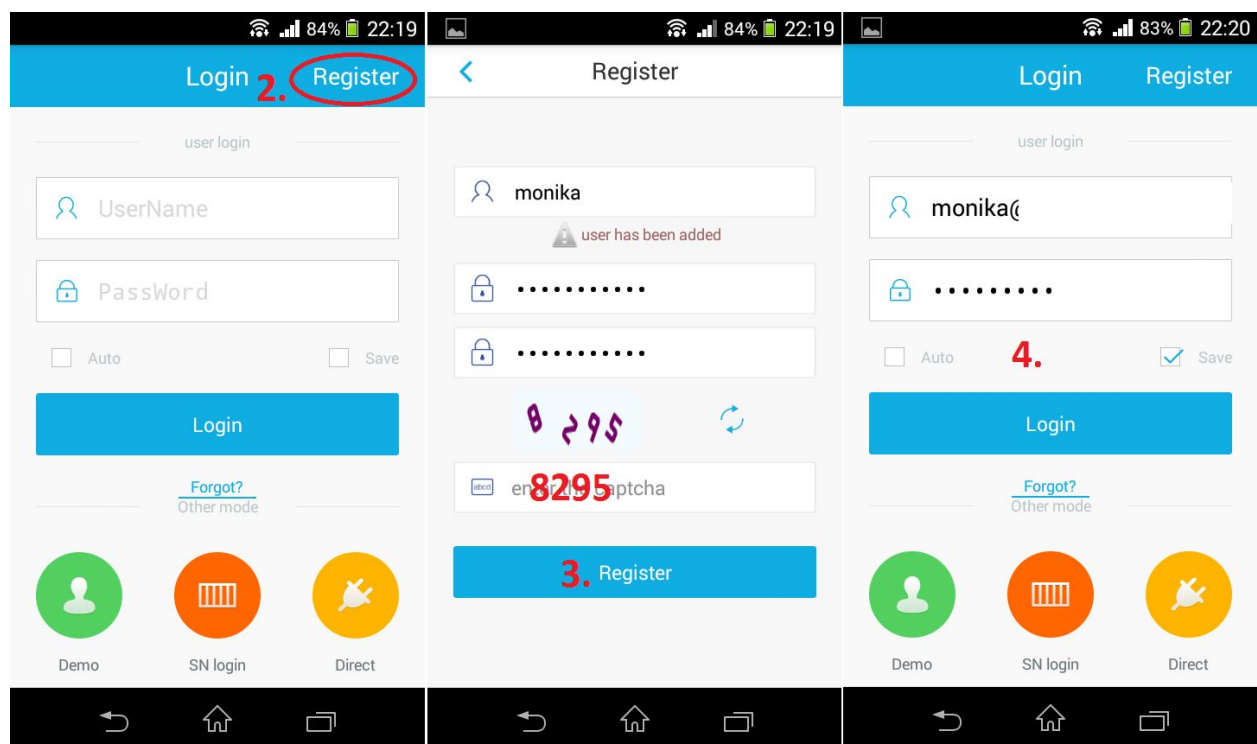
There is a faster way to see all of your cameras. To see all your cameras at once please choose a first camera icon from the bottom of the menu.



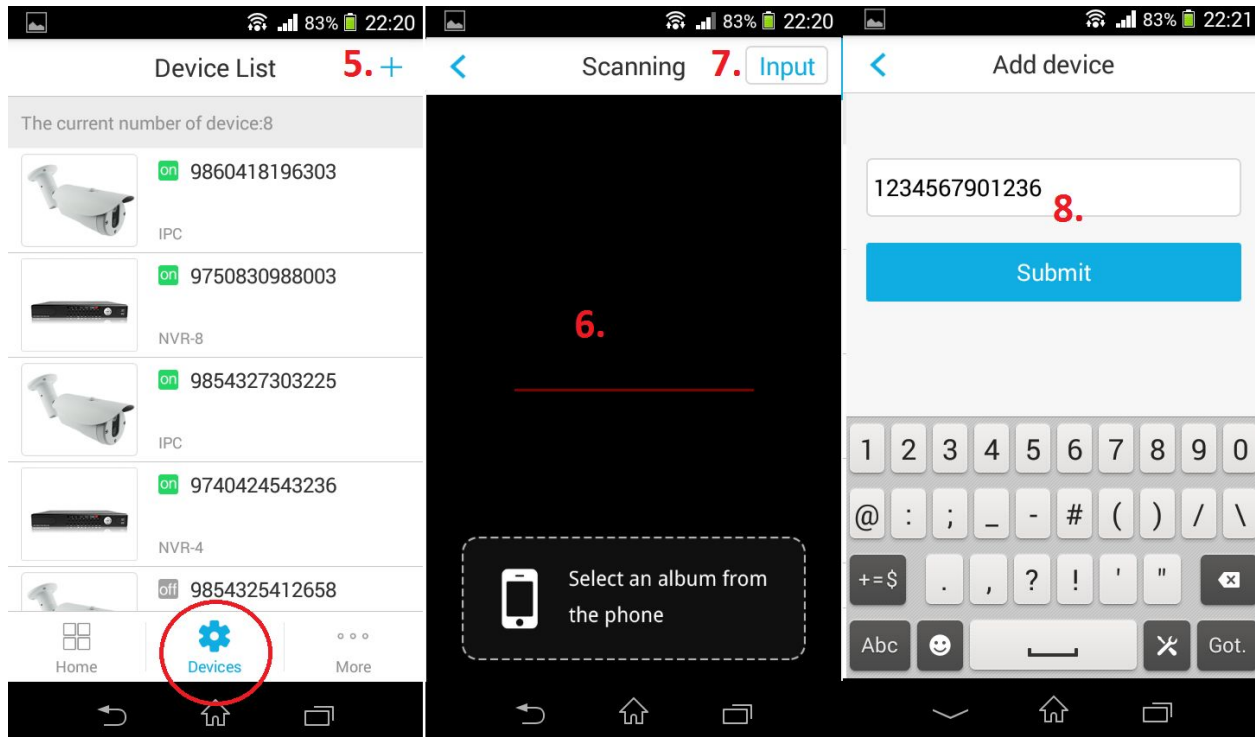
CHAPTER 4. Mobile view - P2P

If you follow the instructions and done setup correctly you will be able to view your system remotely by using P2P technology with a FreeIP app. To successfully set it up please follow instructions below.

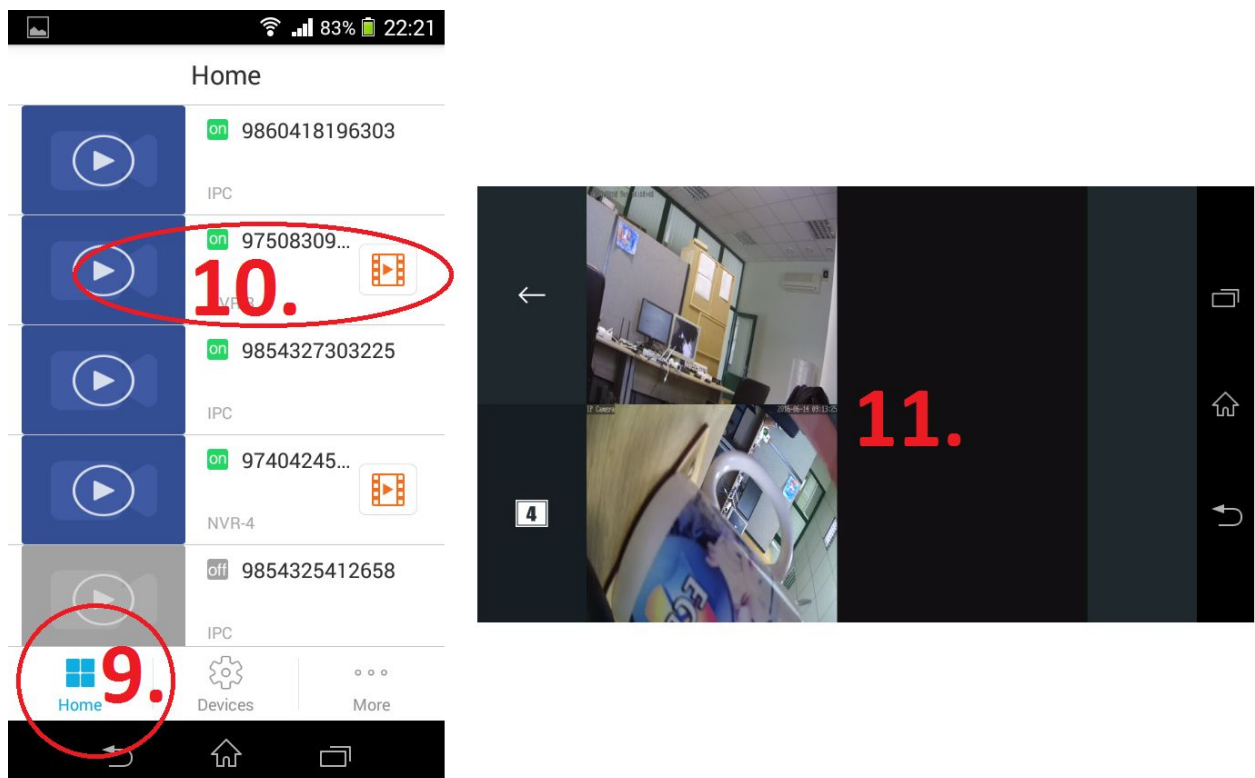
1. First you will need to download and install FreeIP app from your app store. It will be a Google Play if you are using Android phone or tablet and an App Store if you are using iPhone or iPad. Simply type in "FreeIP" in search bar.
2. After installation you can run FreeIP and on landing page please tap "register"
3. In the registration process please enter your email address and create a password for your new FreeIP account. Please don't forget to enter CAPCHA and tap "Register".
4. Now when you register in FreeIP please enter your registration details and tap "Login"



5. When you login to your account you can add your devices into your account. Please make sure you are in "Devices". You can find it on the bottom. Once you are here you can add your item to FreeIP account by tapping "+" button.
6. It will ask you to scan a QR code. You can find a code on your NVR code. Alternatively you can go to Internet Explorer and type in IP address of the recorder.
7. Alternatively you can input serial manually. Go to "Input" icon on the top right corner.
8. Enter your 13 digits code and press "Submit"



9. After adding your device please go to "Home". You can find this button on bottom left.
10. Look for your device and tap on it to open live streaming
11. You should see your cameras now.



CHAPTER 5. Recording & Playback

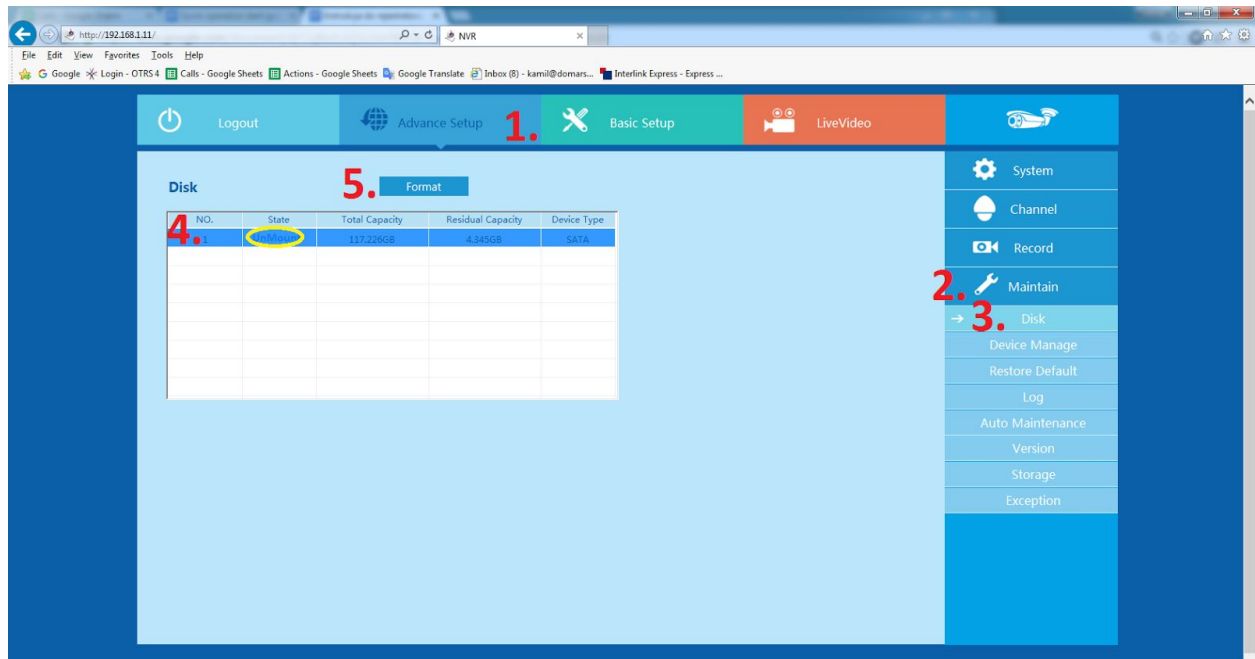
1. Installing & formatting Hard Drive

To install a hard drive you need to open your NVR and connect SATA and power cable. Your NVR is compatible with 2.5 and 3.5 inch hard drives. After mount HDD please don't forget to screw it to NVR.



NOTE: Very important! To be able to use it after you install your hard drive you have to format it first. You can do it by logging to your recorder from Internet Explorer Browser.

1. After you login to your recorder please go to “Advance Setup” or “Basic Setup”
2. Click on “Maintain”
3. Choose “Disk”
4. Select your HDD from the list. On the first installation hard drive should show you “InMount” State”
5. Click “Format”. In the middle you should see a progress bar. After formatting, your recorder will reboot itself. After completion your HDD should be ready to use. To make sure it is come back to “Disk” menu and check with “State” change to “Using”.

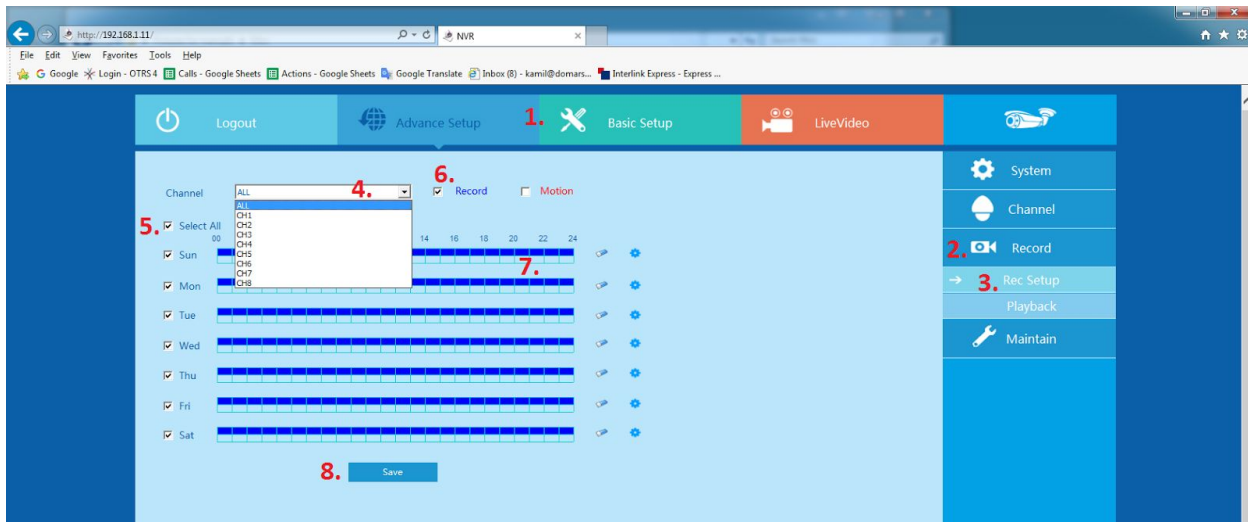


2. Record setup

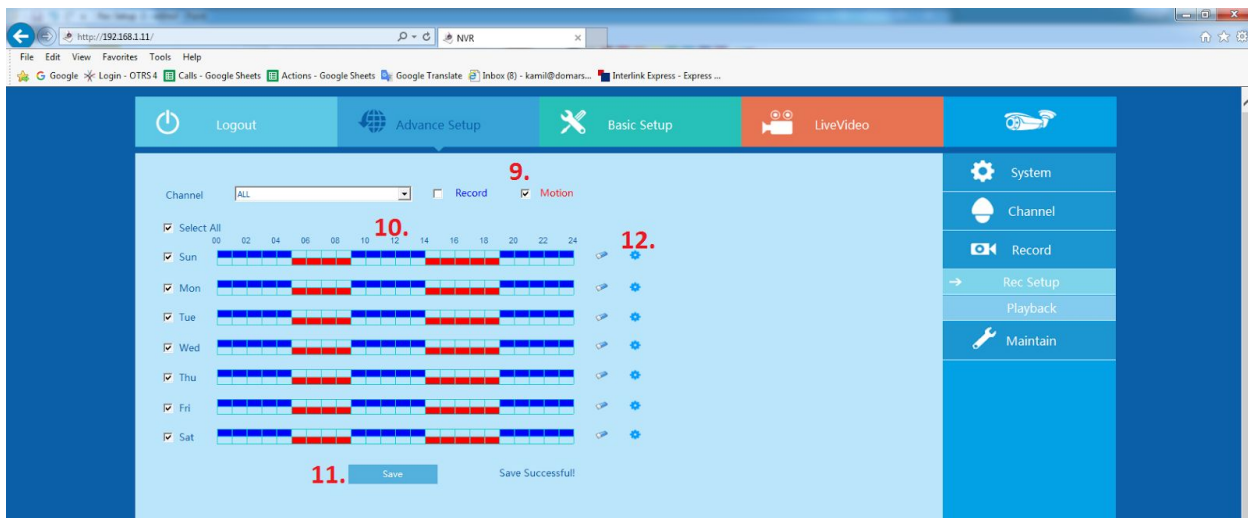
Please follow instruction on how to setup recording correctly.

NOTE: Please keep in mind, when you add your cameras as a default NVR will start to record automatically on constant recording.

1. Please go to “Advance Setup” or “Basic Setup”
2. Click “Record”
3. Choose “Rec Setup”
4. Click on dropdown menu and select “All”
5. Tick box “Select All”
6. Make sure that “Record” is tick
7. If needed you can adjust time for your needs by drawing it on time line.
8. Click “Save”



9. Also, here you can setup mixed recordings. Both constant recording and motion.
To do it please select “Motion”
10. Now you can draw it as you need it.
11. After setup don't forget to “Save”
12. For more advanced options please click on “gear” icon.

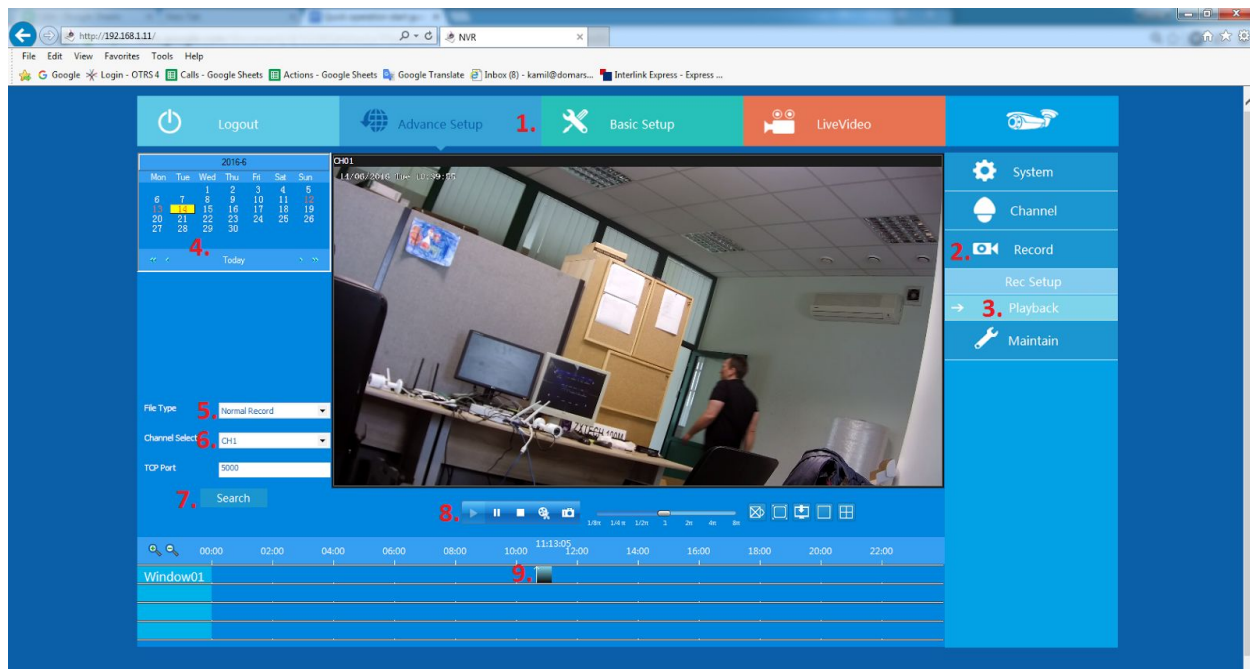


13. As you can see, you can be more specific in your time here. You can setup it for your need.
14. Also, if needed you can copy that settings to all days of the week.
15. Click “Save” when you finish.

3. Playback

To playback your recordings do as follow:

1. Please go to “Advance Setup” or “Basic Setup”
2. Click “Record”
3. Choose “Playback”
4. Select your day from the calendar
5. Choose your type of the recording - Normal (Constant) or Alarm (Motion)
6. Choose channel you want to watch
7. Search for it. After search on the timeline blue bar should show up.
8. Click “Play”
9. If needed you jump to specific time on the recording.



4. Downloading files

It is recommended to download your recordings from the recorder directly using Memory USB Stick. To find out how to do it please see our manual for NVR.

Alternatively you can use CMS software. For that we prepare a separate manual too.

5. Recording on computer

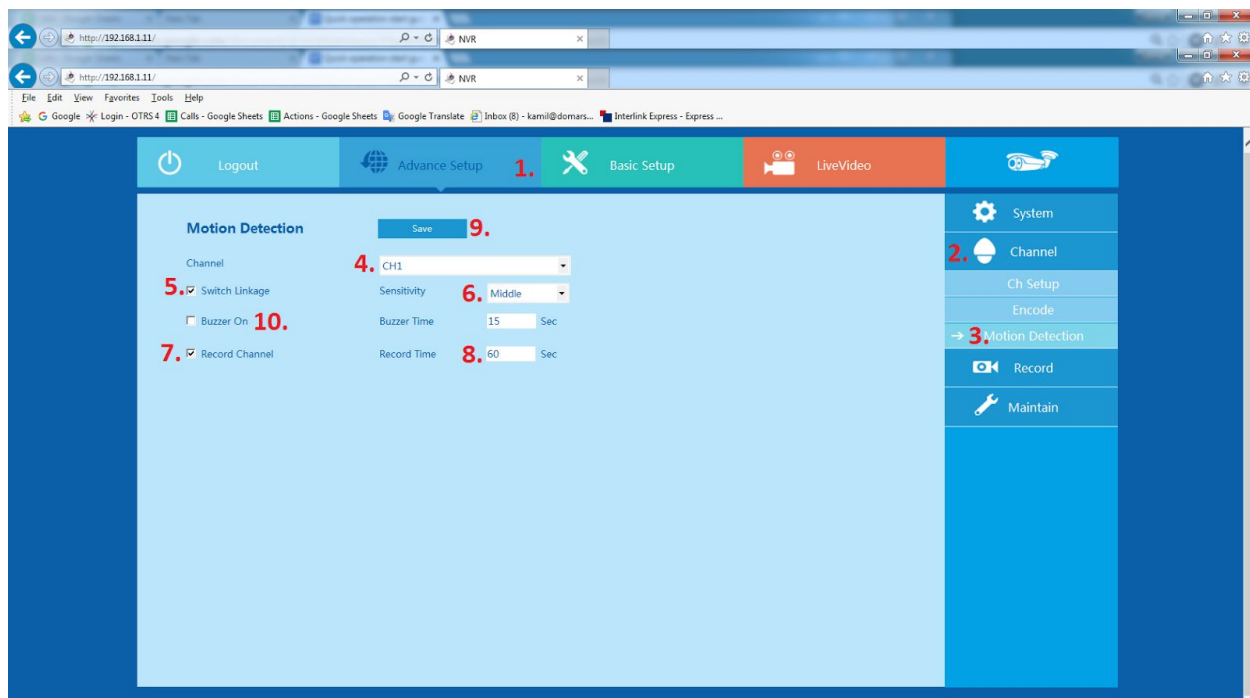
NVR have a feature to record footage to your PC/Laptop directly. However we do not recommend using Internet Explorer web browser in this case. If you would like to record live video stream, you can use CMS software. We have a separate manual for it and we are encouraging you to have a look at it.

CHAPTER 6. Motion detection

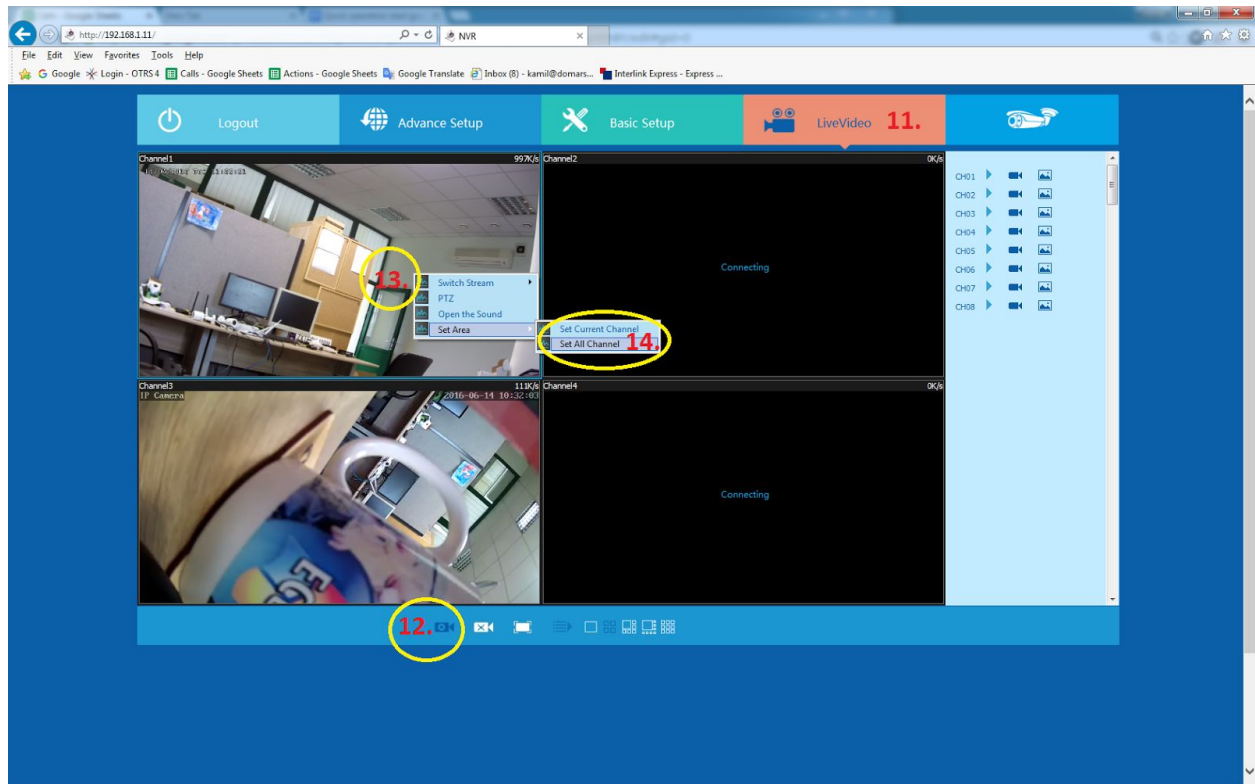
1. Setting up motion detection

Please follow the instructions on how to setup your NVR for Motion Detection.

1. Please go to “Advance Setup” or “Basic Setup”
2. Click “Channel”
3. Choose “Motion Detection”
4. Select channel you want to setup or “All” if you want to setup everything at once.
5. Tick “Switch Linkage”
6. Select what “Sensitivity” you want
7. Make sure that box in “Record Channel” is tick too
8. Setup your recording time
9. After you finish “Save” your settings.
10. Additionally you can turn on “buzzer” to your motion detection and how long NVR will be making noise.



11. Now we have to select the area that motion detection will cover. To do it please go to “LiveVideo”
12. Click on “Play All” icon
13. Right-mouse click on channel you want to setup and point mouse to “Set Area”
14. Here you can choose if you want to setup current channel or setup all channels at once



15. Blue squares will trigger motion detection

NOTE: It is recommended to select all area as blue if you choose “Set All Channels”

16. Empty area won’t trigger motion

17. When you done right click anywhere on screen and choose “Save And Exit”

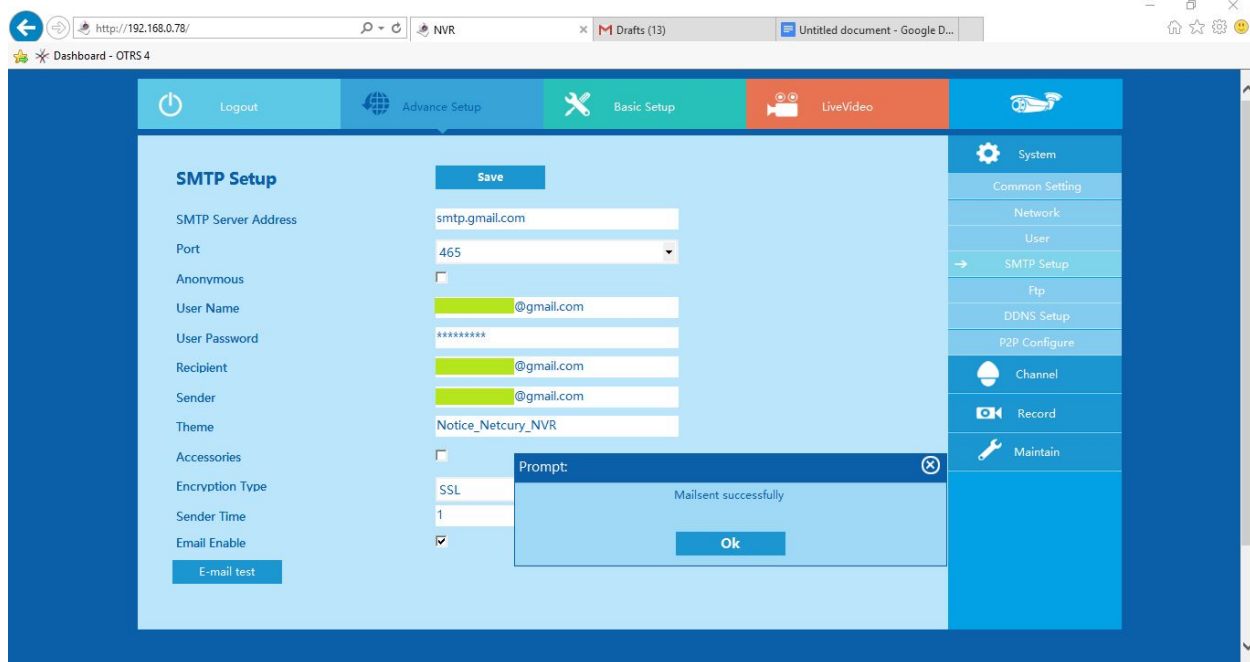
2. Recording alarm

To record your channel please go to [Chapter 5. Recording & Playback](#)

3. SMTP alarm

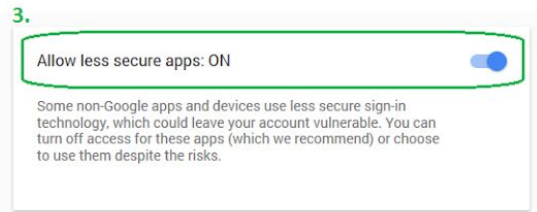
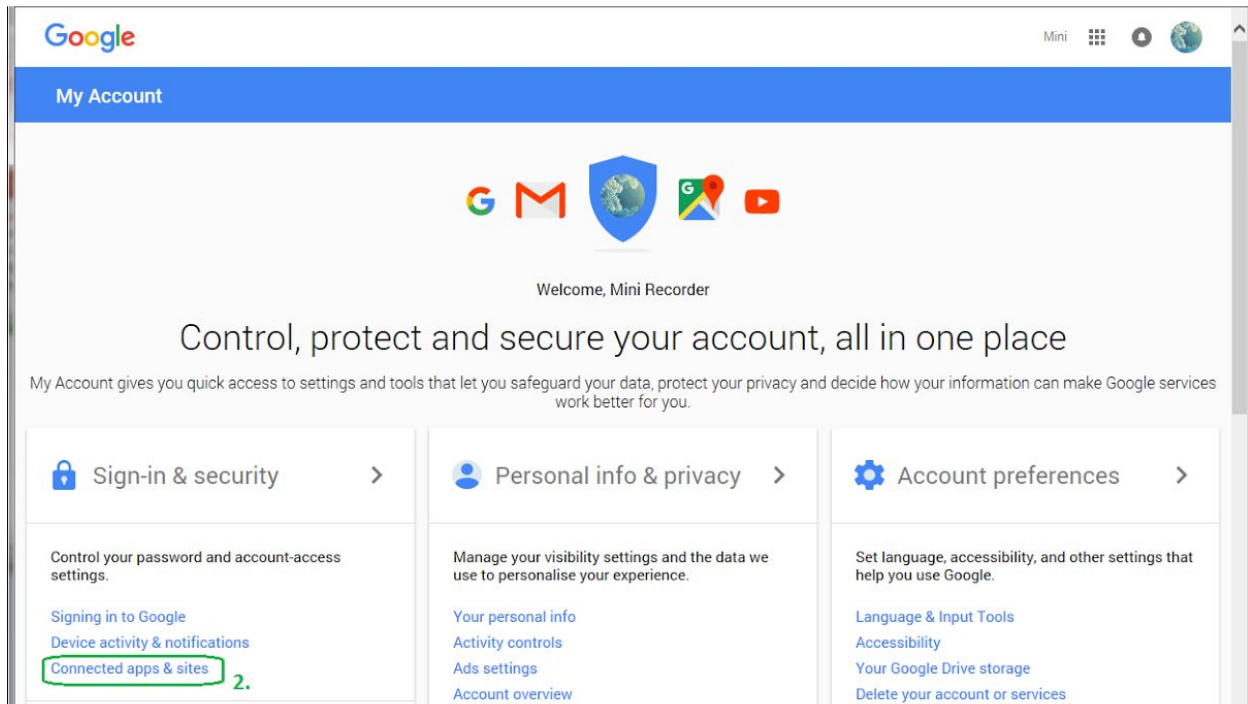
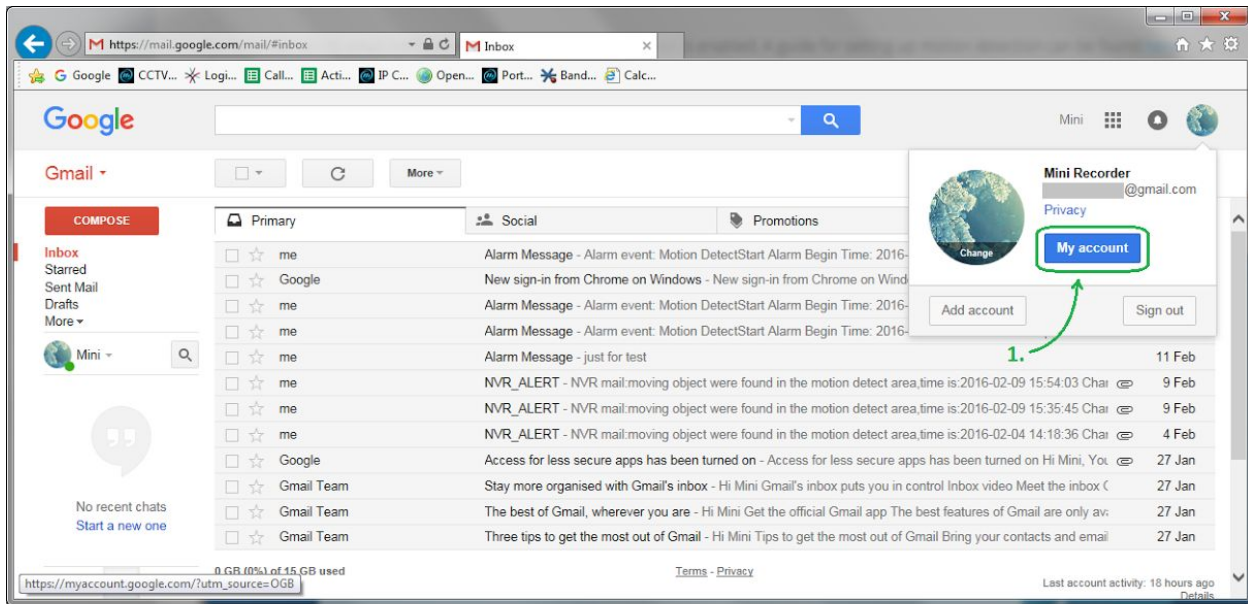
Recorder have a very useful feature. It can send pictures to your email address if it would trigger motion. When setting up email/SMTP details, the recorder requires various fields to be filled - most of them can be found in the help section when you login to your mailbox from your web browser.

NOTE: We are recommending to use a Gmail account. So far it is the most stable and most reliable email provider.



- **SMTP Server:** address of outgoing mail server for your mailbox
- **Port:** port number on which SMTP server is listening, usually 25, 587 or 465
- **Anonymous:** select if your mailbox allows anonymous SMTP connections, most popular mailboxes won't allow it
- **User Name:** your email address from which the recorder will be sending messages
- **User Password:** password for the email you provided in "User Name"
- **Recipient:** email address to which you wish emails to be sent
- **Sender:** email address from which recorder will be sending messages
- **Theme:** subject for emails that will be send
- **Accessories:** enable it if you want recorder to attach a snapshot from the camera to your email
- **Encryption type:** NONE, SSL or TLS depending on your mailbox settings, most common is SSL **Tip:** by default if port is 25 you have to select NONE, for port 587 - TLS, for 465 - SSL
- **Sender time:** time interval in minutes (how often you would like for the recorder to send e-mails)
- **Email Enable:** select it if you want emails to be sent, deselect if you do not want email notifications

NOTE: If you going to use Gmail account you will have to change few settings on your account.

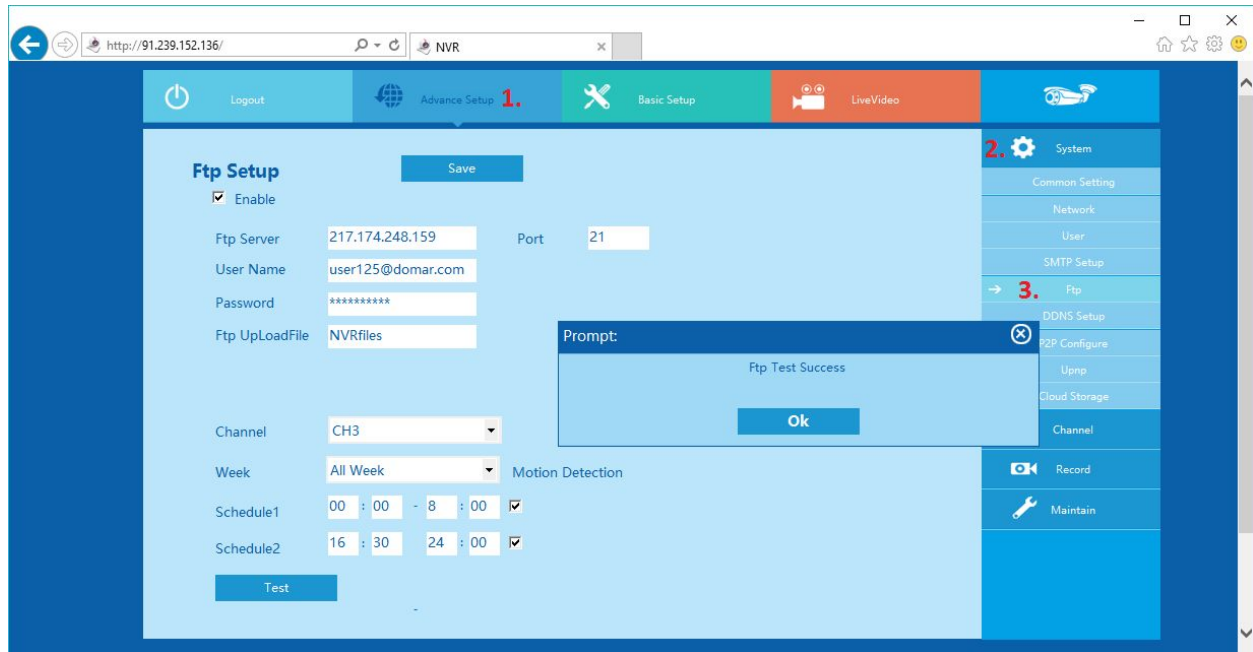


NOTE: for more SMTP settings examples visit our website: domar.com/support/smtp

4. FTP alarm

NVR can upload screenshots taken from cameras to a FTP server when motion detection alarm is triggered. Please make sure to activate motion detection for selected NVR channel first.

To setup FTP uploads go to **Advance Setup (1.)**, from right side menu choose **System (2.)** and **FTP (3.)**.

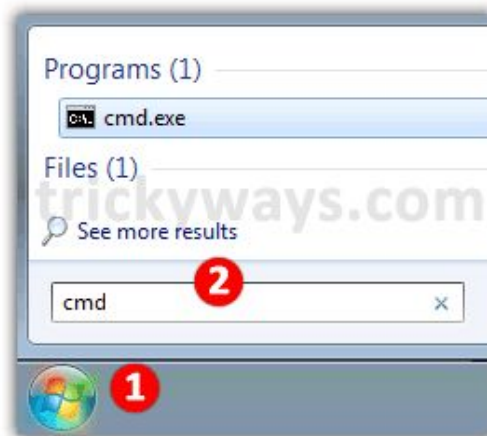


Enable - tick this box to enable FTP uploads, untick to disable this option.

Ftp Server - IP address of your FTP server.

Tip: Don't know what's your FTP server IP address, you only know it's domain name? You can check it from command line:

- Open up Start menu and search for program called **cmd** (command prompt).



- In a command prompt type in command: **ping domain_name**.

It will translate a domain name into IP address:

```
C:\Users\Niel.000>ping ftp.domar.com

Pinging domar.com [217.174.248.159] with 32 bytes of data:
Reply from 217.174.248.159: bytes=32 time=43ms TTL=55
Reply from 217.174.248.159: bytes=32 time=43ms TTL=55
Reply from 217.174.248.159: bytes=32 time=42ms TTL=55
Reply from 217.174.248.159: bytes=32 time=43ms TTL=55

Ping statistics for 217.174.248.159:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 42ms, Maximum = 43ms, Average = 42ms
```

User Name - username for your account on FTP server.

Password - password for that account.

Ftp UploadFile - name of a directory where files will be uploaded, located in your home directory on a FTP server.

Tip: If you want for NVR to upload files straight to your home directory leave this field empty. Putting non-existent directory name will result in creating it in home directory.

Channel - select a camera you want to setup schedule for FTP uploads. You can set up all of them at the same time choosing **ALL** option or each camera individually by choosing **CH1**, **CH2**, etc.

Week - select a day (**Sun.** - **Sat.**) if you want to have different schedules for each day or **All week** if schedule should be the same for every day.

Schedules - allow you to decide what times (**00:00** - **24:00**) uploads should happen. Schedules are assigned to days (**Week** field), you can setup every day differently. For each day NVR offers you 2 schedules, meaning you can choose 2 different time periods.

Test - press this button to test if NVR can upload files using current settings. Please remember to save them first! During this process NVR will try to upload small **ftpctest.txt** file to the chosen directory on the FTP server.

5. Cloud storage alarm

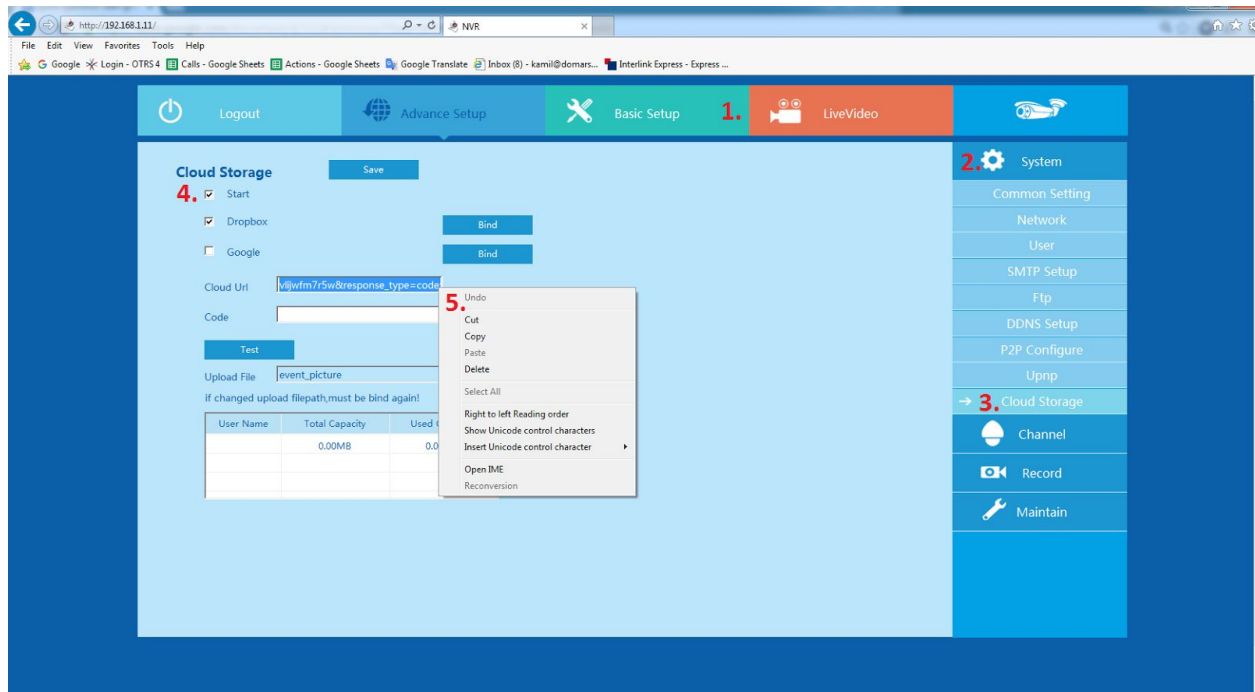
Cloud storage is working very similar to FTP feature. Difference is that you have to use cloud hard drive. We can choose what service you would like use. There is two options. Google or Dropbox. On both of them you need to have an accounts setup already. If you do below you can find instructions how to bind them with your NVR.

- Google Drive

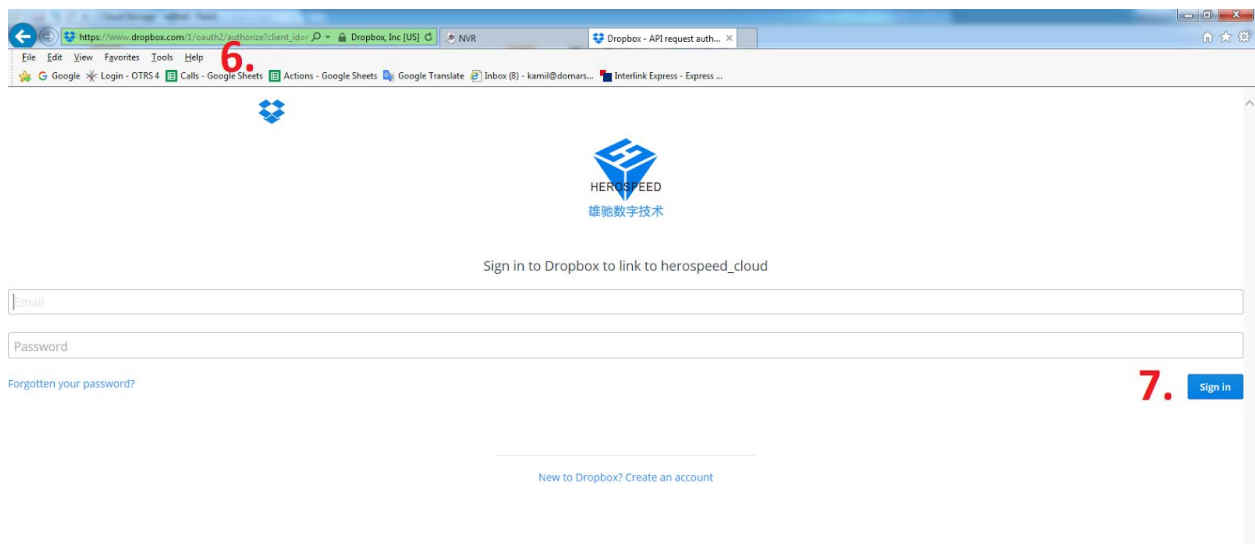
1. Go to "Advance Setup"
2. Click "System"

3. Choose "Cloud Storage"
4. Tick "Start" box and choose "Dropbox". Link should appear on "Cloud URL"
5. Click right-mouse button in field and select "Copy"

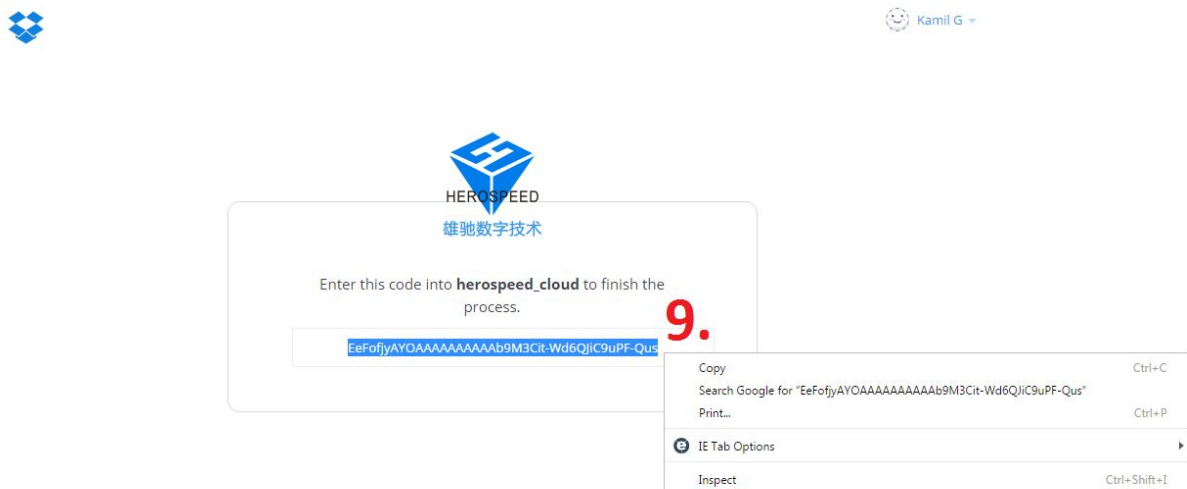
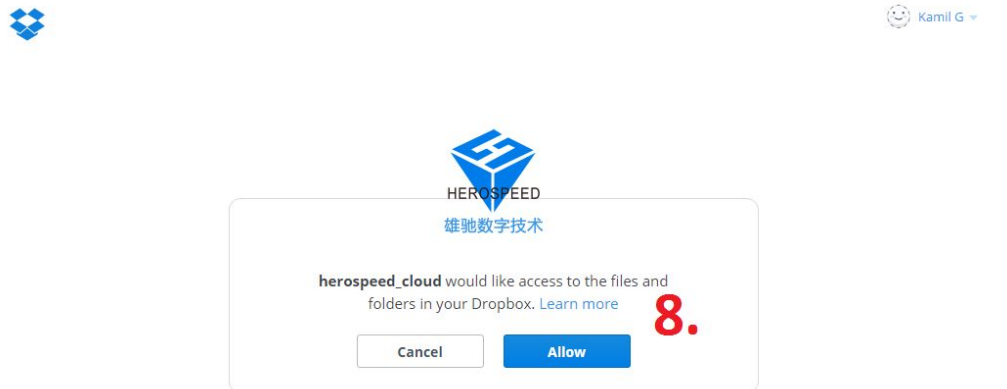
NOTE: Please make sure you selected whole link



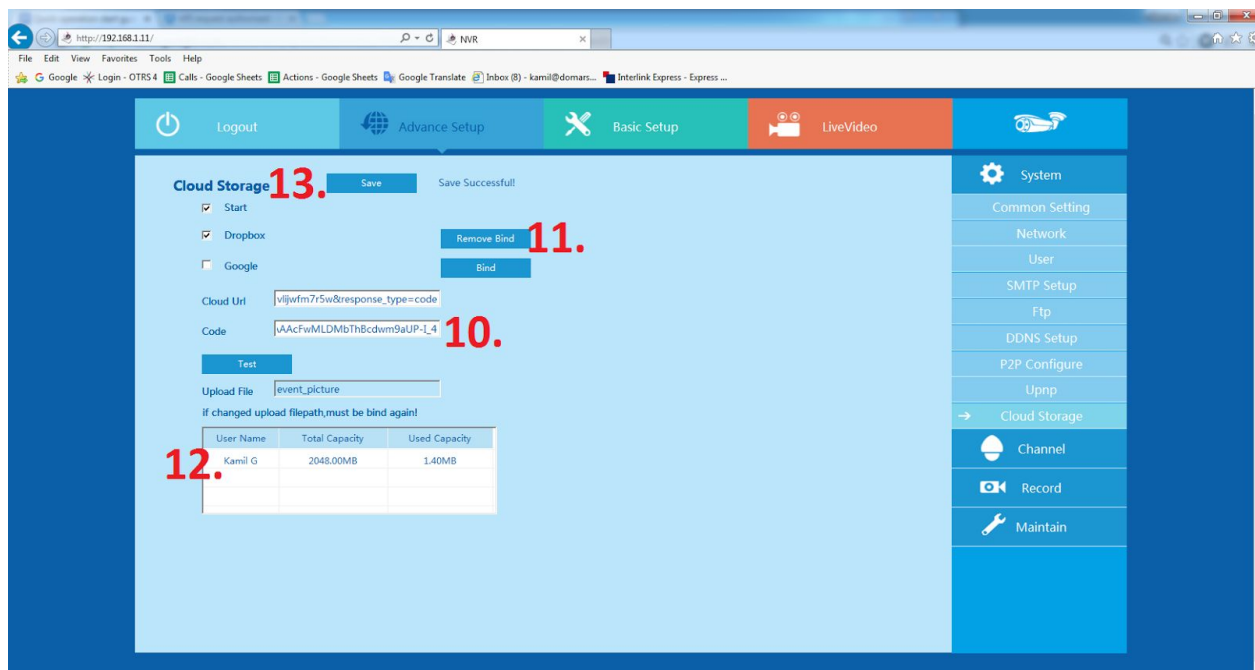
6. Now open new tab in your browser and paste link to the address bar.
7. If needed please login to your Dropbox account.



8. After login you should see information and question if you want recorder to store your pictures on dropbox. Please choose "Allow"
9. You will see code for this connection. Please select all and copy that.



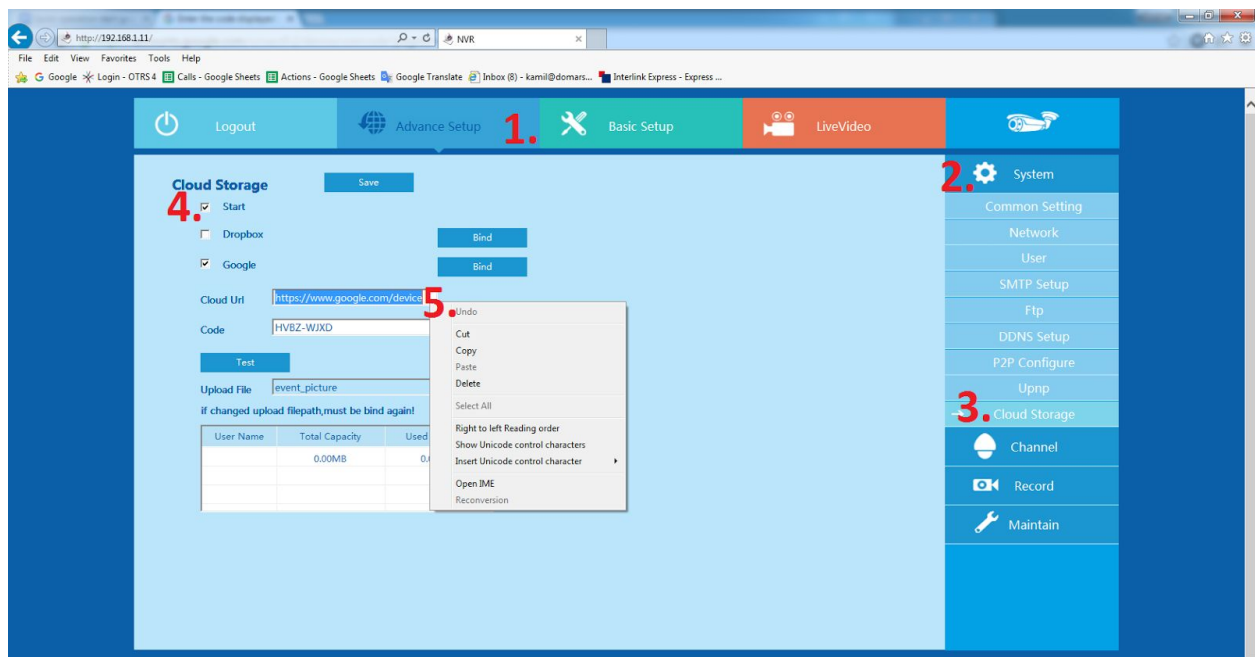
10. Now you have to paste this code in the "Code" field.
11. Click on Dropbox "Bind" button and wait.
12. Your details should appear at the bottom table.
13. When you finish please "Save" your changes.



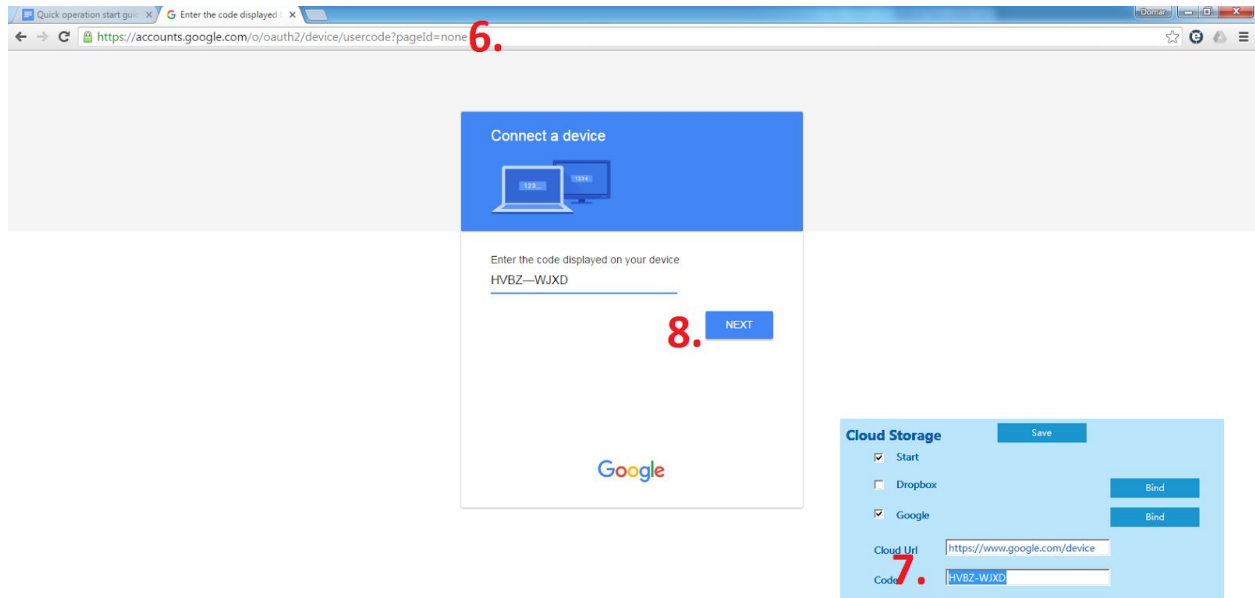
● Google Account

1. Go to "Advance Setup"
2. Click "System"
3. Choose "Cloud Storage"
4. Tick "Start" box and choose "Google". Link should appear on "Cloud URL"
5. Click right-mouse button in field and select "Copy"

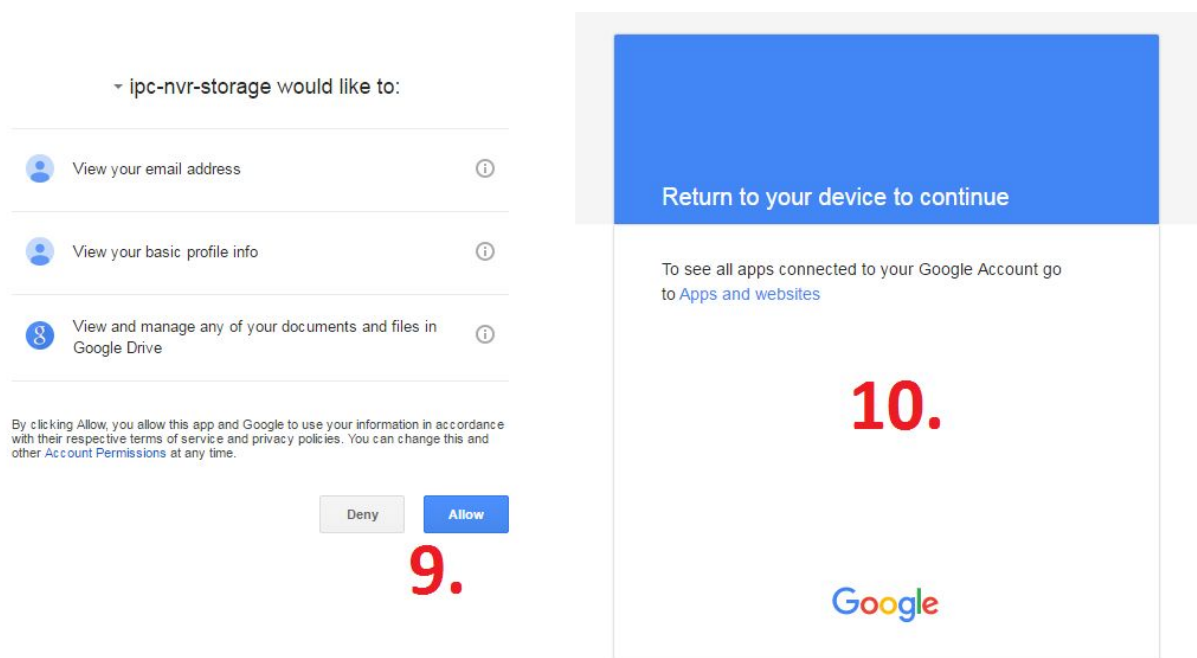
NOTE: Please make sure you selected whole link



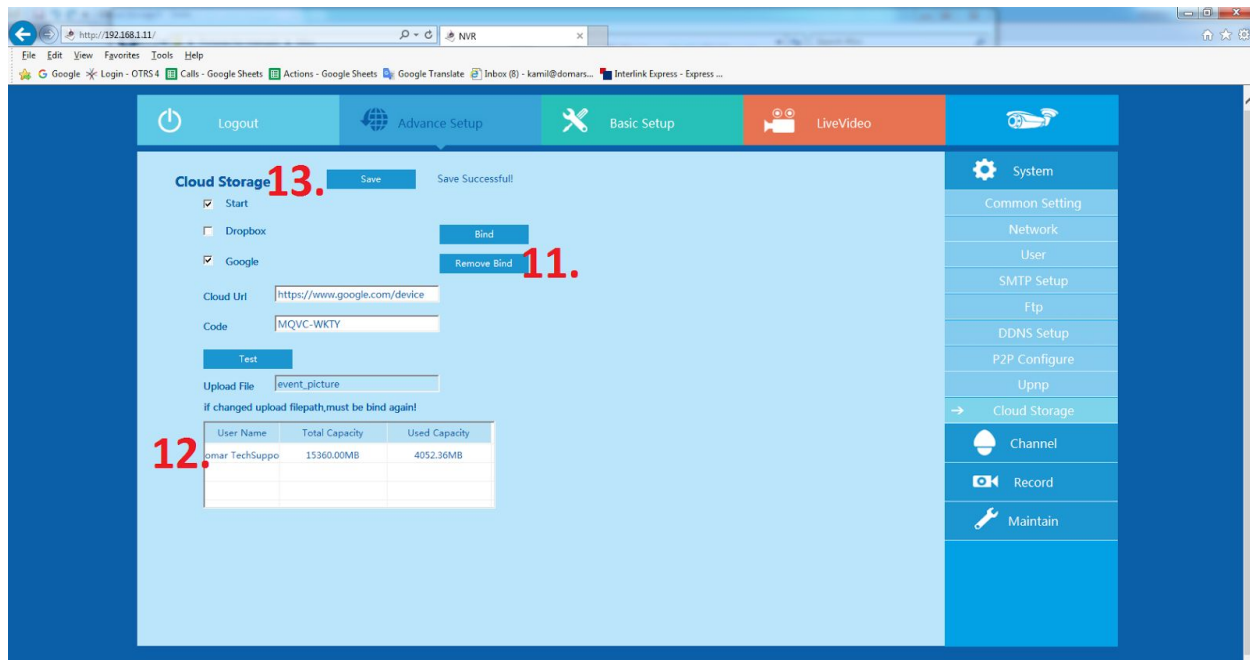
6. Now open new tab in your browser and paste a link to the address bar.
NOTE: Login to your account if needed.
7. Copy code from “Code” field from your recorder tab.
8. Paste code and click “NEXT”



9. You will be asked to “Allow” NVR to connect with your Google account.
10. You should see a confirmation page. Now you have to go back to your NVR tab to bind account.



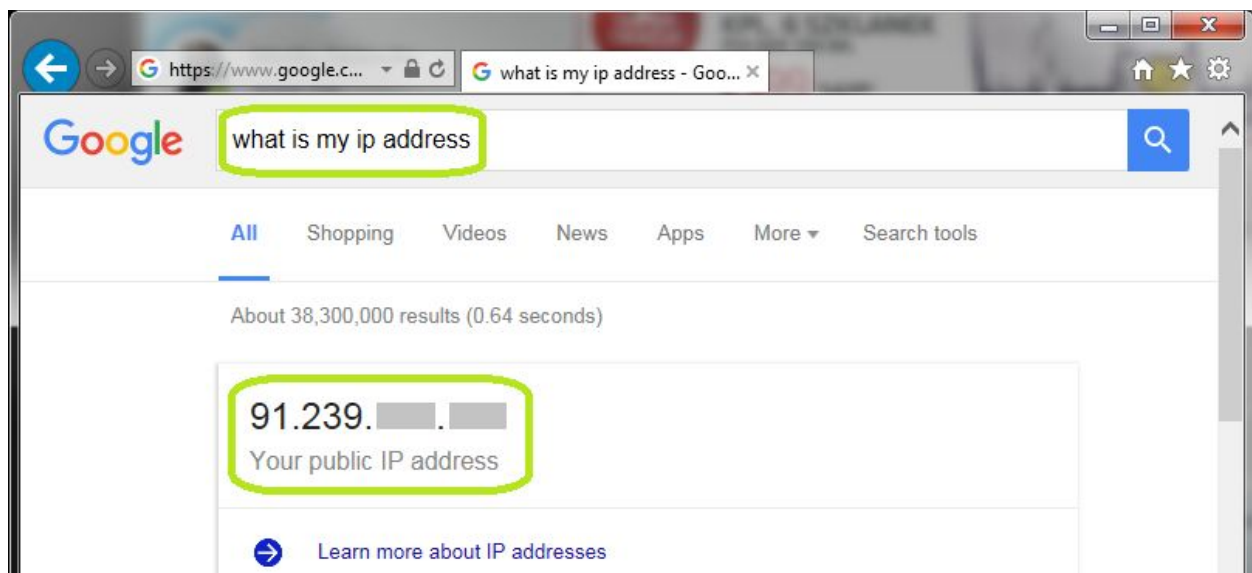
11. Now when you are back to your NVR tab please click “Bind” button beside “Google”
12. If you done everything correctly, you should see your details on bottom table.
13. When you finish “Save” your settings.



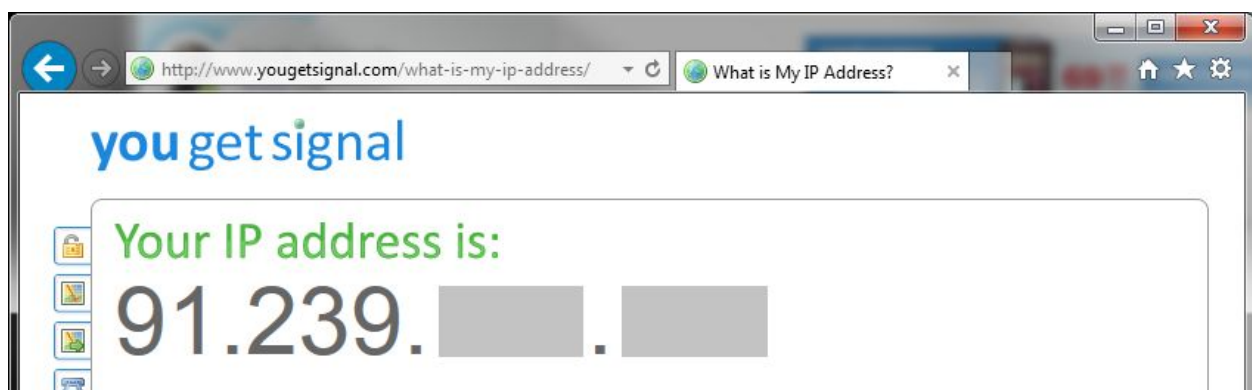
CHAPTER 7. Connecting from different network

Accessing NVR web interface using local IP addresses like *192.168.1.88* is possible only when your computer is connected to the same network (the same router) as recorder. Connections from external networks needs adding a rule to local router firewall. It's called port forwarding. Without port forwarding rules routers firewall will drop every incoming connection from outside of his network.

With port forwarding rules in place, access to NVR from outside local network require using external IP address of a router instead of local IP of NVR. From outside of your local network router is the only visible device. Every device connected to router is protected by it and hidden. You can find this IP address on a router web page. Or you can use Google - in Google search bar type in 'what is my IP address', in most cases search result will provide IP address straight away:

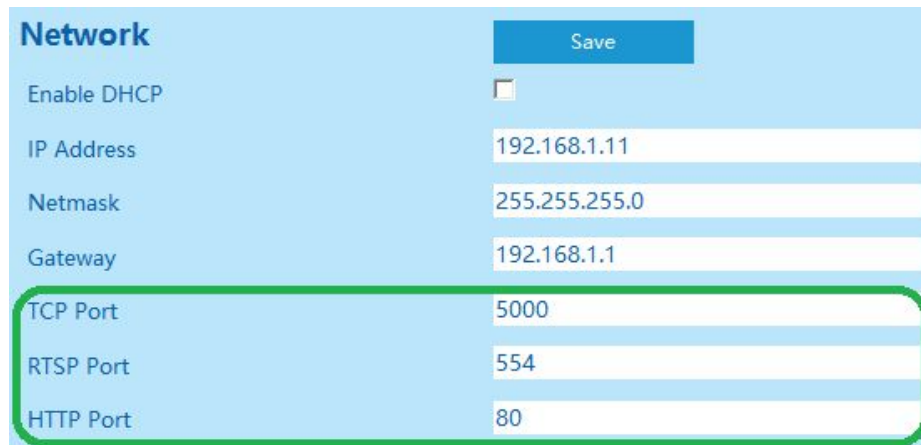


You can find many web pages providing you with external IP address of your network, one of many is www.yougetsignal.com/what-is-my-ip-address/:



1. Port forwarding

NVR uses 3 ports to send data when you're connecting to it - HTTP, RTSP and TCP port. HTTP port is used to display web interface, RTSP to stream video and TCP port to access playback. Default port no. are: HTTP - 80, RTSP - 554 and TCP - 5000. You can check which ports your NVR is using in **Advance Setup → System → Network**. You can also change those default values here if needed.



To enable web browser access from external network it's necessary to add port forwarding rule on a router for HTTP and RTSP ports of the NVR. Port forwarding for TCP is optional.

To add this rules access your router web page from local computer. Most routers are accessible by typing their local IP address into web browser address bar:



Tip: Don't know how to find your router IP address (default gateway)? Please check [Chapter 2. Network](#).

Find the **Firewall** and **Port forwarding** section and add entries for those 3 ports using your NVR local IP address:

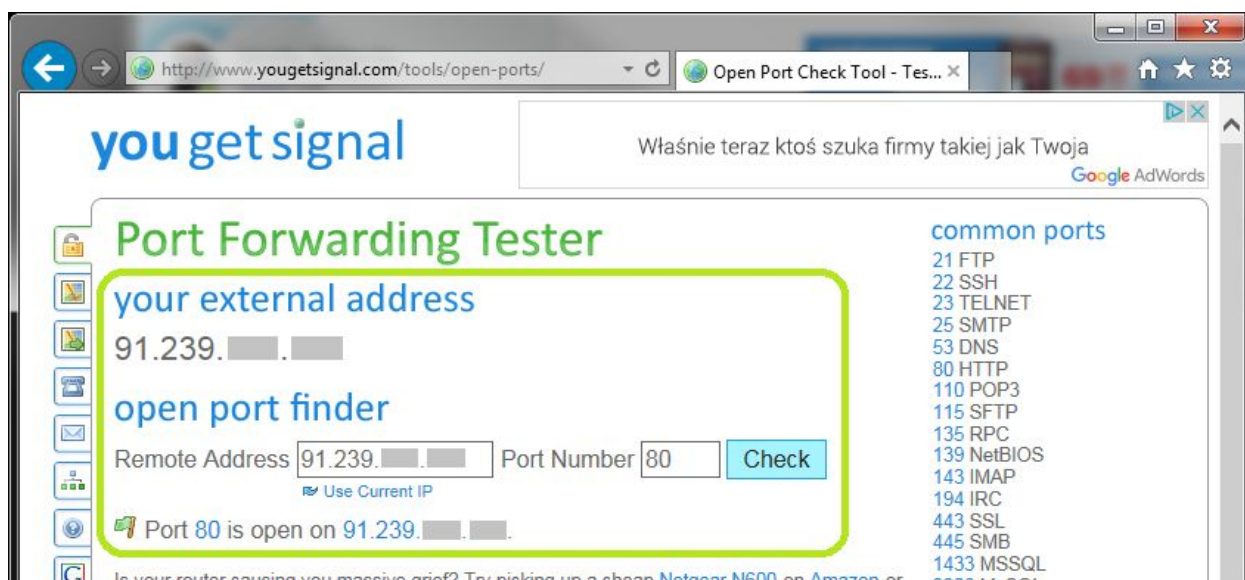


Every router is different. If you're having problems try this links showing how to forward ports on the most common routers:

- BT Home Hub - [Click Here](#)
- Netgear - [Click Here](#)
- Technicolor TG 582 - [Click Here](#)
- Virgin - [Click Here](#) or [Click Here](#)
- TalkTalk - [Click Here](#) or [Click Here](#)
- Port forwardings on various different routers - [Click Here](#)

If you cannot find what you're looking for here, please search for "your router brand" + "port forwarding" on Google.

Want to know if port forwarding was successful? On the internet you'll find many web pages, search for "port forwarding tester". One of many is: www.yougetsignal.com/tools/open-ports/:

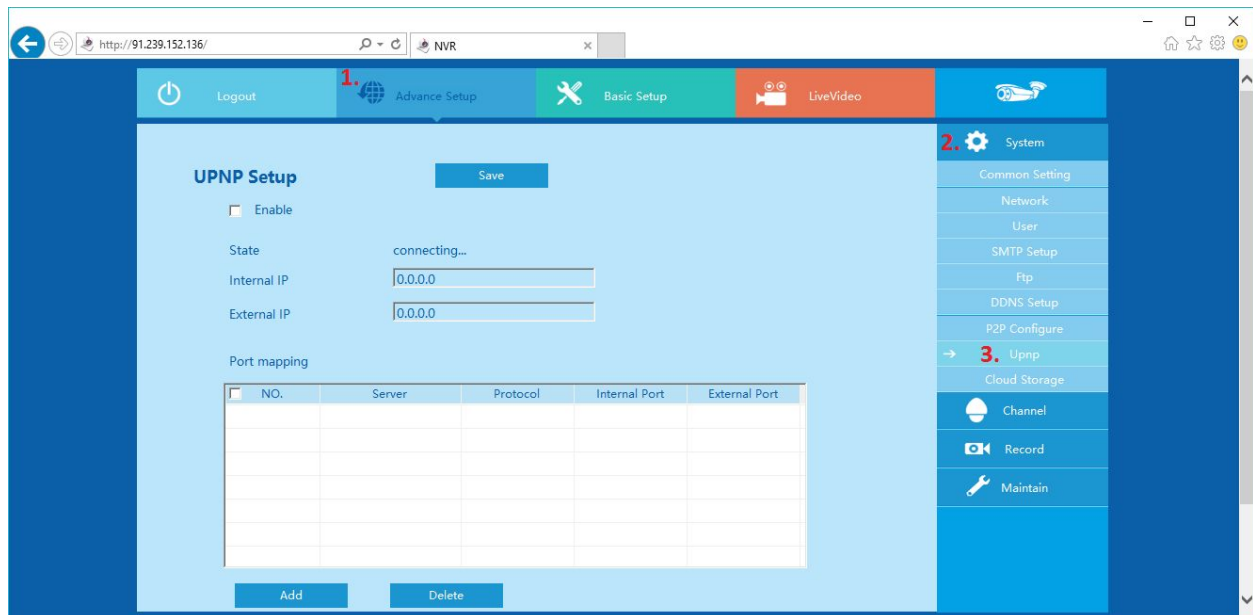


2. UPnP

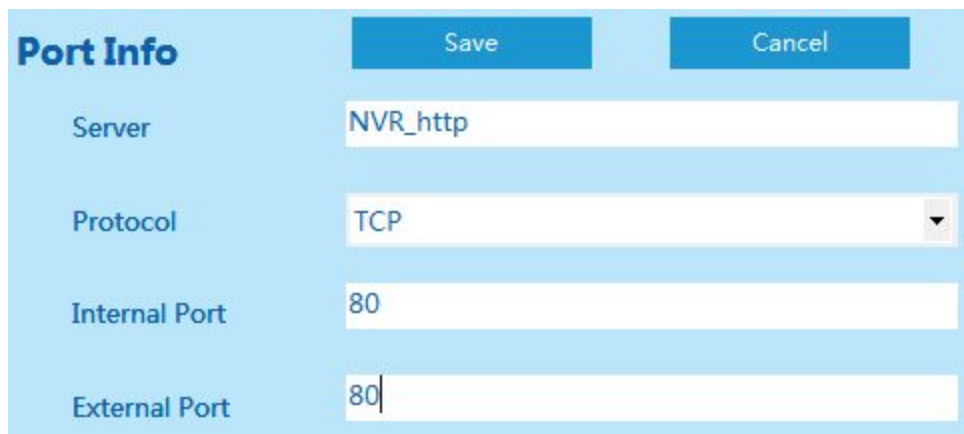
UPNP (Universal Plug and Play) is a service that permits networked devices, such as NVRs, computers and mobile devices to seamlessly discover each other's presence on the network and establish communication and data sharing channels. UPNP devices when connected to a network automatically establish working configurations with other devices.

Many routers and firewalls expose themselves as Internet Gateway Devices, allowing any local UPNP control point to perform a variety of actions, including retrieving the external IP address of the device, enumerate existing port mappings, and add or remove port forwarding rules. In short - **if UPNP is enabled on your router** NVR will be able to ask router to automatically add port forwarding rules needed for remote access to it from external networks.

To setup UPNP service go to **Advance Setup (1.)**, from right side menu choose **System (2.)** and **FTP (3.)**.



First add rules for ports you want router to open for NVR. Click **Add** button below **Port mapping** table.



| Port Info | | Save | Cancel |
|---------------|---------------------------------------|------|--------|
| Server | <input type="text" value="NVR_http"/> | | |
| Protocol | <input type="text" value="TCP"/> | | |
| Internal Port | <input type="text" value="80"/> | | |
| External Port | <input type="text" value="80"/> | | |

Server - name for port this forwarding rule.

Internal Port - port your NVR uses for chosen service. Default port numbers are: HTTP (web access) - 80, RTSP (video stream) - 554, TCP (playback) - 5000.

External Port - port you want open on a router. You can use the same port number as internal one. Change it if you already have port forwarding rules on a router using this port for a different device.

3. DDNS

To remotely connect to NVR from external network you need to know your router external IP. But what if your IP changes? That's the case for most home networks. It could change once a month, once a week or even a few times a day. Dynamic IP addresses are very common since they are cost effective for Internet service providers.

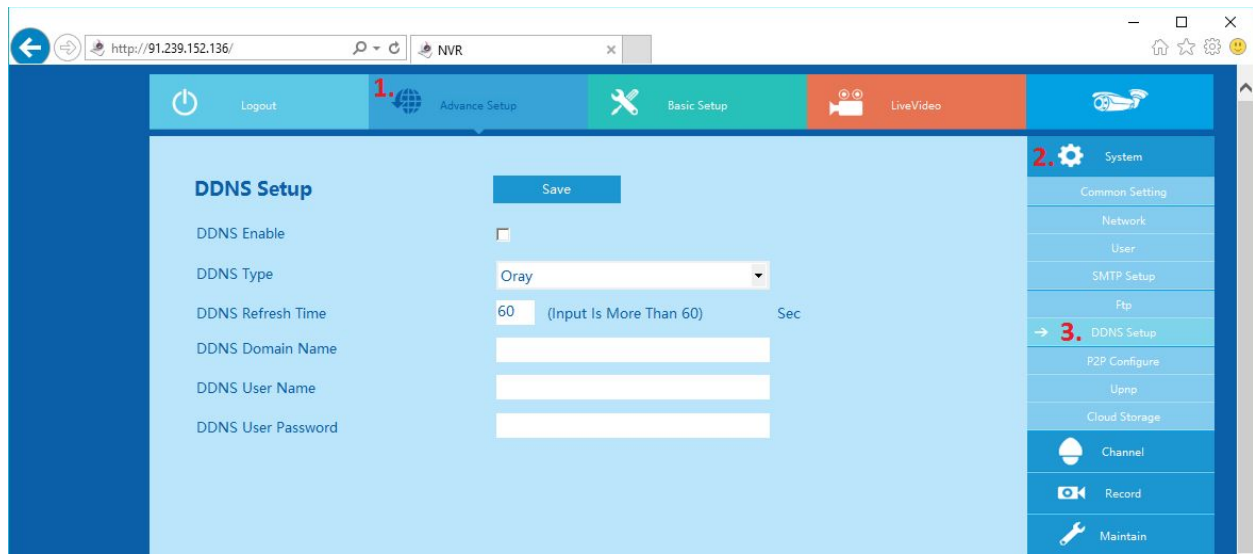
Since a large majority of people have a Dynamic IP address at home, it can be extremely difficult to always reach your device, because your IP address is always changing. Since you aren't alerted when it changes, it is very hard to keep track of.

To get around this issue you can ask your provider for fixed IP address or you can use Dynamic DNS service. There's many companies that provide it.

DDNS service allows you to use domain names instead of IP addresses. Domain name will always stay the same. Even when IP change device will alert DDNS service to update IP address connected to domain name.

This NVR supports use of *Oray*, *No-IP*, *Dyn*, *CHANGEIP*, *A-PRESS*, *MYQSEE*, *SKDDNS* and *SMART-EYES* services. **Tip:** please check your NVR, depending on a firmware version of NVR this list may be a bit different.

To setup Dynamic DDNS use go to **Advance Setup** (1.), from right side menu choose **System** (2.) and **DDNS Setup** (3.).



DDNS Enable - tick this box to activate Dynamic DNS function.

DDNS Type - choose your DDNS provider from this list.

DDNS Refresh Time - choose how often NVR will update its IP address for DDNS provider.

DDNS Domain Name - domain you registered with provider.

DDNS User Name - username for your account in provider system.

DDNS Password - password for that account.

That's an example of DDNS settings for No-IP service:

A screenshot of the 'DDNS Setup' form in the NVR interface. The 'Save' button is at the top right. The form fields are: 'DDNS Enable' (checked checkbox), 'DDNS Type' (dropdown menu showing 'No-IP'), 'DDNS Refresh Time' (input field with '60' and a note '(Input Is More Than 60)' followed by 'Sec'), 'DDNS Domain Name' (text field with 'domarmininvr.ddns.net'), 'DDNS User Name' (text field with 'domar_monika'), and 'DDNS User Password' (password field with masked characters '*****').

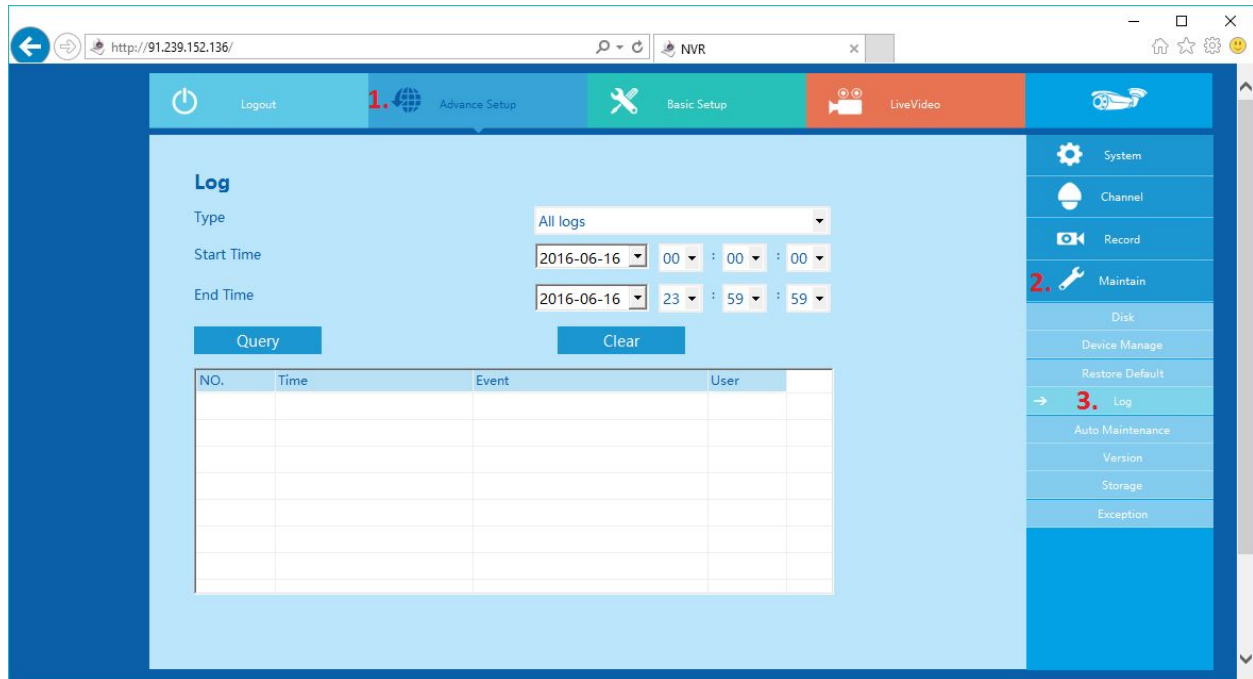
And NVR with this settings is accessible under DDNS domain regardless of IP changing.



CHAPTER 8. Troubleshooting

1. Log

To access NVR logs go to **Advance Setup (1.)**, from right side menu choose **Maintain (2.)** and **Log (3.)**.



Log provides information about NVR status, errors, configuration changes, users activity and access to recorded files.

| NO. | Time | Event | User |
|-----|---------------------|-------------------------------|-------|
| 339 | 2016/06/10-11:23:40 | Modify User | admin |
| 340 | 2016/06/10-11:21:44 | Add User | admin |
| 341 | 2016/06/10-11:18:11 | Save Network Configuration | admin |
| 342 | 2016/06/10-11:18:11 | Set Network | admin |
| 343 | 2016/06/10-11:06:16 | Auto Maintenance | admin |
| 344 | 2016/06/10-11:06:16 | Turn on automatic maintenance | admin |
| 345 | 2016/06/10-10:48:06 | Save channel configuration | admin |

Type - choose what type of information should be displayed: *All logs, System Management, User Management, Parameter configuration, File Operations, Status prompt, Alarm Event.*

Start Time / End Time - choose dates and times to narrow search results. Maximum time you can display logs from is 7 days.

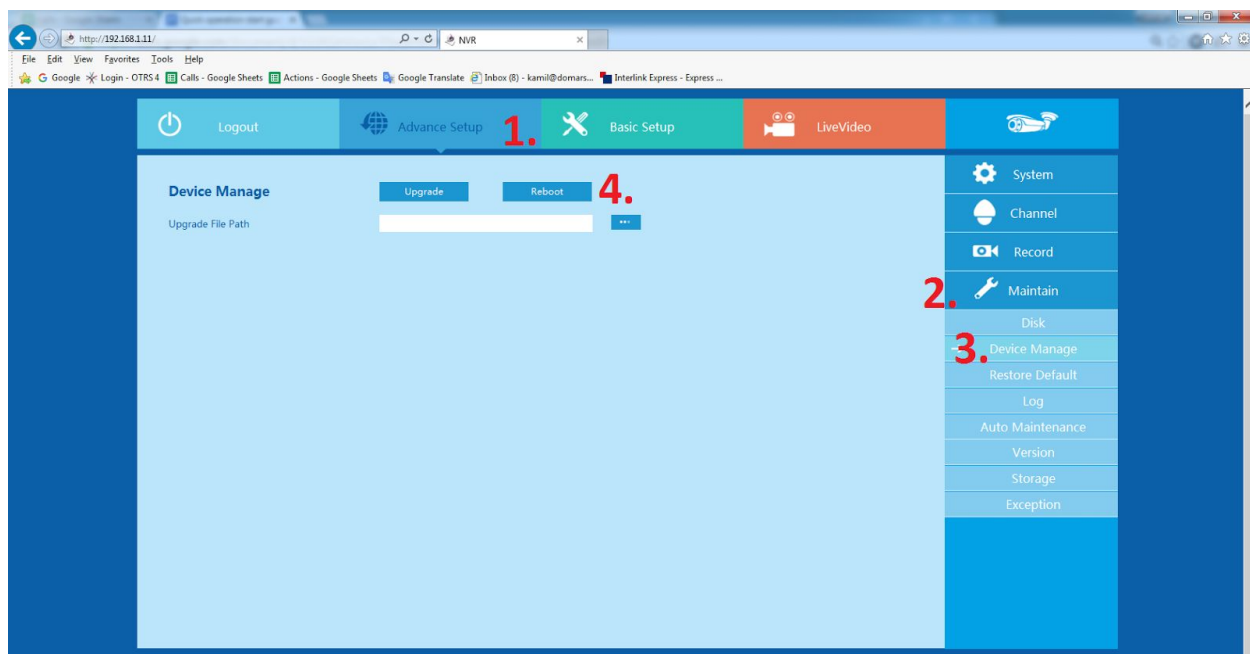
Query - press this button to start search process.

Clear - delete information in the log.

2. Reboot & Auto Reboot

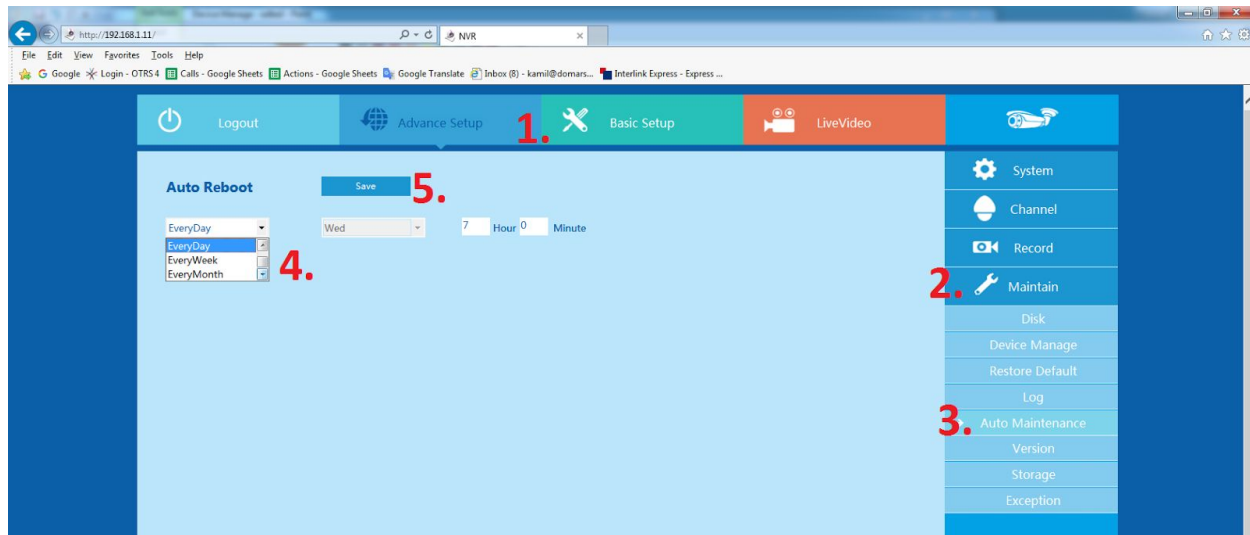
There is a possibility to reboot your recorder manually from Internet Explorer Browser.

1. Go to "Advance Setup"
2. Click "Maintain"
3. Choose "Device Manage"
4. Click "Reboot"



Also, it is recommended to setup your recorder to Auto Maintain option. It will help your recorder to delete a catch on your chipset.

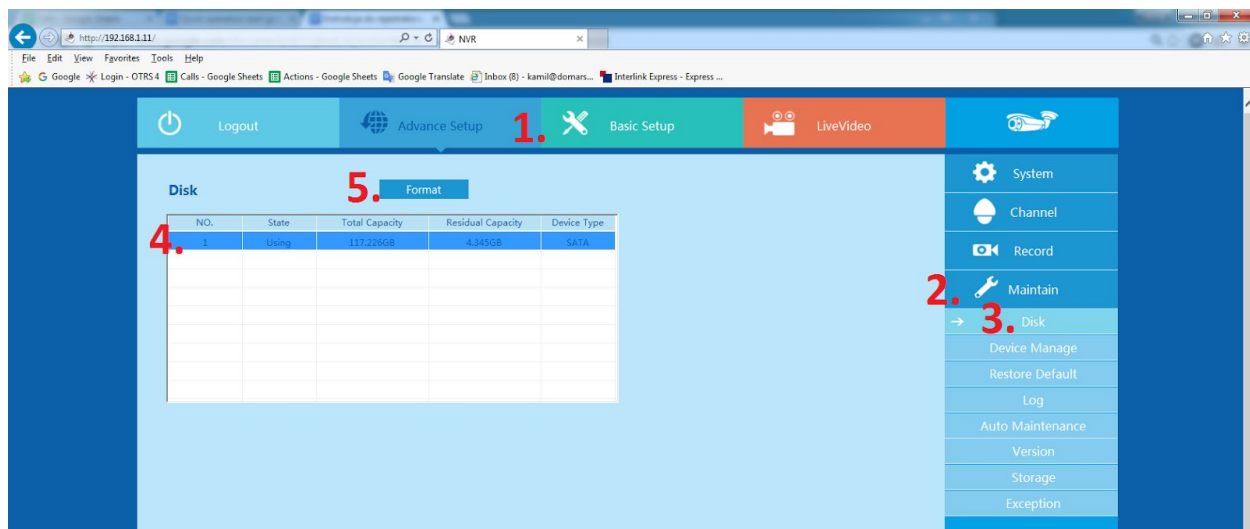
1. Go to "Advance Setup"
2. Click "System"
3. Choose "Auto Maintenance"
4. From the dropdown menu choose how often you want to NVR do auto reboot. You can choose from few option.
5. When you are done "Save" your settings.



3. Formatting hard drive

Only if necessary you can format your HDD.

1. After login to your recorder please go to “Advance Setup” or “Basic Setup”
2. Click on “Maintain”
3. Choose “Disk”
4. Select your HDD from the list.
5. Click “Format”. In the middle you should see a progress bar. After formatting your recorder will reboot itself. When it does it your HDD should be ready to use again. To make sure it is come back to “Disk” menu and check with “State” change to “Using”.

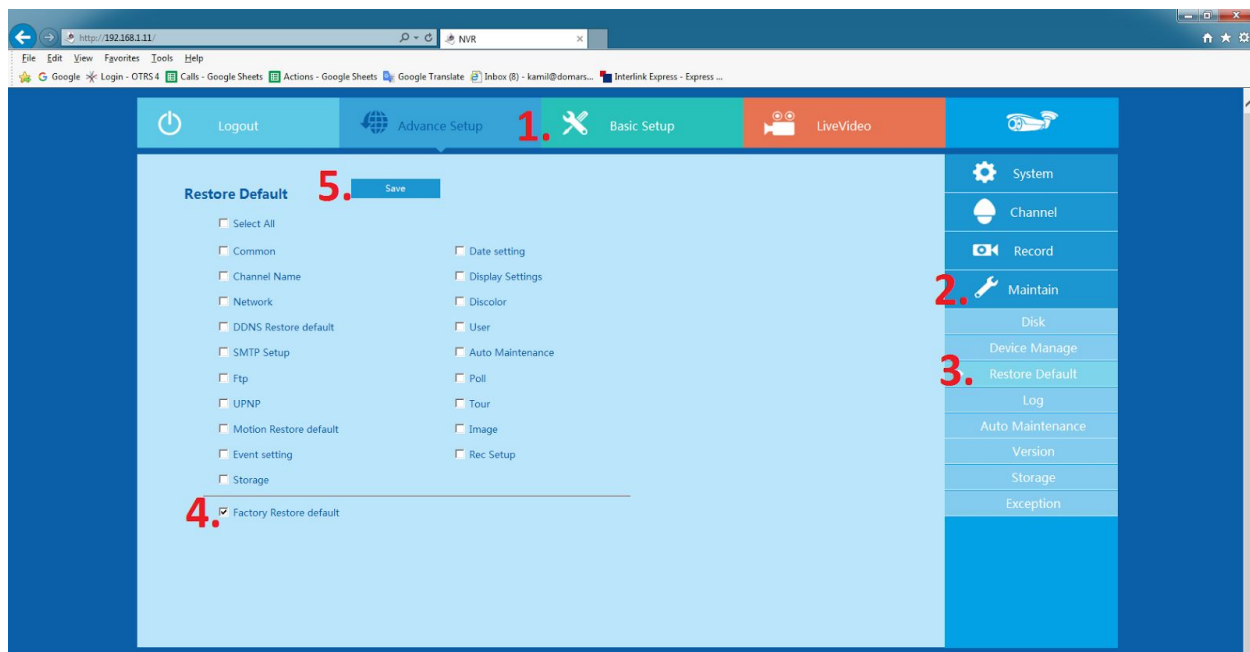


4. Reset to defaults

If you stuck and you have a feeling that nothing is working correctly we will recommend resetting your recorder back to the factory settings.

1. After login to your recorder please go to “Advance Setup” or “Basic Setup”
2. Click on “Maintain”
3. Choose “Restore Default”
4. Tick “Factory Restore default”
5. Click on “Save” Button. After that your recorder will come back to factory settings.

You don’t have to reset all your system to factory settings. You can select options to reset, just choose what is needed and click “Save” button to reset and reboot your system.

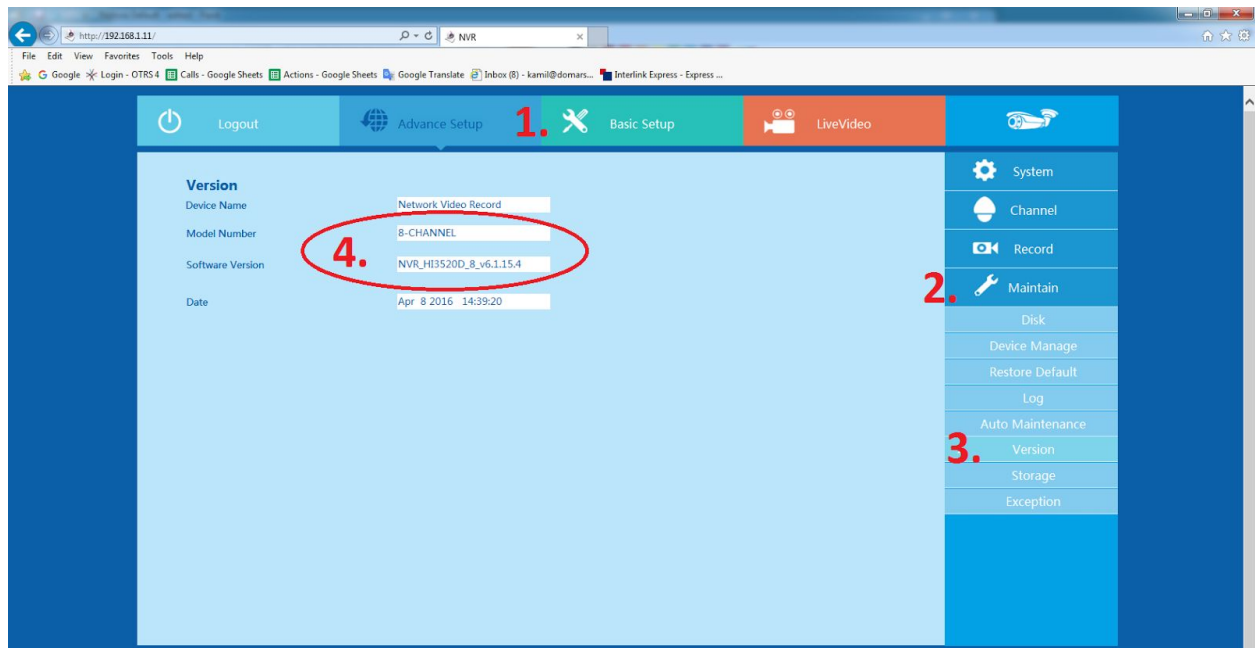


5. Checking firmware version & update

● Current firmware version

How to check what is your current firmware version on your recorder?

1. After logging to your recorder please go to “Advance Setup” or “Basic Setup”
2. Click on “Maintain”
3. Choose “Version”
4. Here you will find all needed information.



● Upgrading your system

For updating files contact us at techsupport@domarsolutions.com. Please provide information about **Model Number** and **Software Version**.