HIKVISION

Quick Start Guide

Plug 'n Play NVR
DS-7604NI-E1/4P
DS-7608NI-E2/8P
DS-7616NI-E2/16P

Note: For more information refer to the complete User Manual located on the CD-ROM

CONTENTS

Please connect a monitor and a USB mouse (supplied) to the NVR for configuration purposes

1. OVERVIEW

THE BOX CONTAINS:

|				
NVR	USB Mouse	IR Remote (Batteries not included)	Power Cord	Hard Drive Mounting screws and brackets
Hard Drive (Preinstalled)	Hard Drive Cables	Rack Mount Ear (not included in 4-ch model box)	Quick Start Guide	Manual/Software CD

Please note, that the Quick Start Guide is compiled for the latest firmware versions. Please upgrade the firmware of the NVR to the latest version before proceeding. Also note, that the CD may contain outdated manuals and software.

For the latest firmware, manual and software downloads please visit:
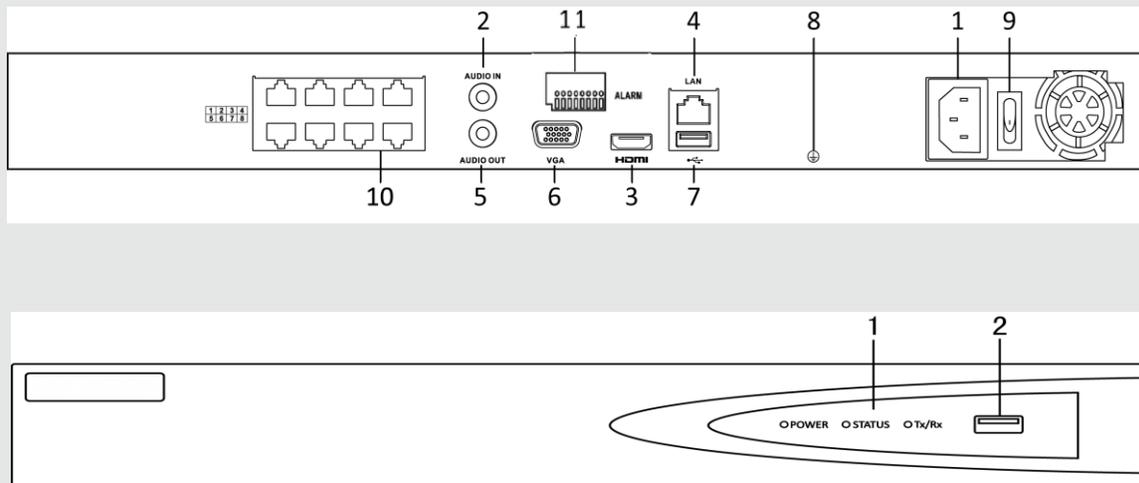
www.hikvision.com/en/us/download.asp

DS-7604NI-E1/4P
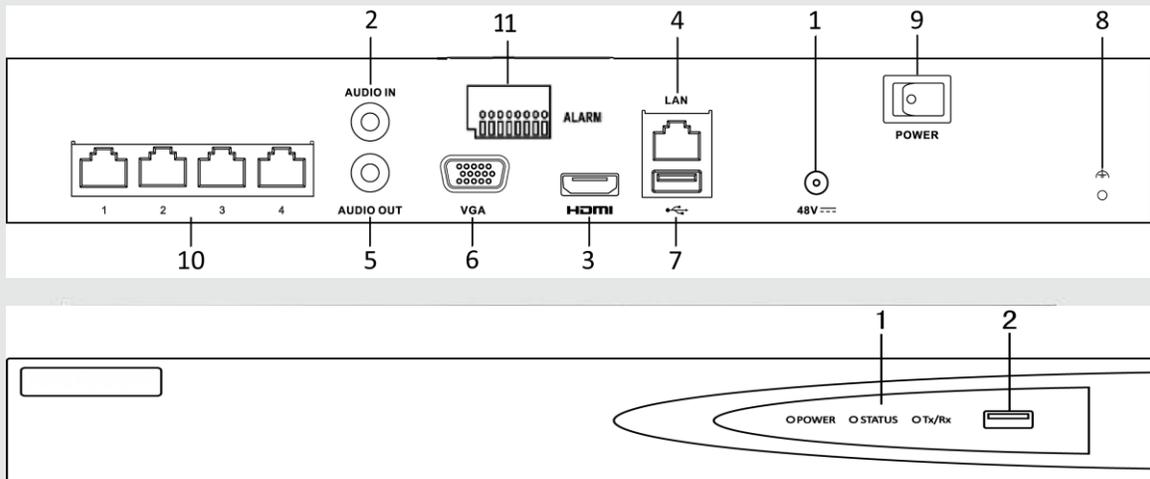
REAR VIEW

1. Power Supply Port
2. Audio In
3. HDMI Monitor Output
4. Network Interface(RJ45)
5. Audio Out
6. VGA Output
7. USB Port
8. Grounding Screw
9. Power Switch
10. Built in POE Switch
11. Alarm In/Out

FRONT VIEW

1. Power, Status and Tx/Rx indicators
2. USB Port

DS-7608NI-E2/8P / DS-7616NI-E2/16P

REAR VIEW
1. Power Supply Port
2. Audio In
3. HDMI Monitor Output
4. Network Interface(RJ45)
5. Audio Out
6. VGA Output
7. USB Port
8. Grounding Screw
9. Power Switch
10. Built in POE Switch
11. Alarm In/Out

FRONT VIEW
1. Power, Status and Tx/Rx indicators
2. USB Port

NOTE: The rear panel of 7616NI-E2/16P provides 16 independent 100 Mbps PoE network interfaces

2. DEVICE ACTIVATION

To ensure the highest level of protection, Hikvision requires users to create a new password for the **admin** account upon first login to a device. The system will check the password strength; "Risky" passwords will not be accepted.

Device Firmware with Secure Activation

Device Type	Model Number	Firmware Version
Value Series IP Camera	DS-2CD2xxx	V5.3.0
Smart Series IP Camera	DS-2CD4xxx	V5.3.0
NVR/Hybrid	DS-9016HWI-ST DS-96xxNI-ST DS-7716NI-SP/16	V3.1.5
Plug-n-Play NVR	DS-76xxNI-EI(E2)/P	V3.1.0
Turbo DVR	DS-72xxHGHI-SH DS-73xxHQHI-SH	V3.1.6
Super NVR	DS-96128NI-E24/H DS-96256NI-E24/H	TBD

NOTE: DVRs/NVRs starting with the latest firmware (see chart, above) WILL NO LONGER HAVE A DEFAULT PASSWORD. The user must activate the DVR/NVR by creating a password for the **admin** account in one of four ways:

- **Local Activation**

1. Power on the DVR/NVR.

    -   A message will appear, prompting user to activate the device.
    -   The username field will be greyed-out with the username set to **admin**.

2. Type in a password of your choosing (see "Password Strength Levels" table for guidelines).

    -   The password strength will be displayed, accompanied by a color indicator*:

        •   Level 0–*Risky* (red indicator): Not acceptable
        •   Level 1–*Weak* (red indicator): Acceptable
        •   Level 2–*Fair* (orange indicator): Acceptable
        •   Level 3–*Strong* (blue indicator): Acceptable

    -   Activation will not be allowed unless the password is of acceptable strength.

---

* **NOTE:**   The strength level indicator colors can vary by activation process, model number, and device type.

3. Retype the password into the "Confirm Password" field.

4. After an acceptable password has been created, a confirmation message will appear on the screen.

5. Press the **OK** button to proceed.

- **SADP Software Activation (v2.2.3.5 or higher)**

1. Launch the new version of the SADP software (v2.2.3.5).

   - The software will display all Hikvision devices on the network.
   - A new field called "Security" will be displayed

2. If the DVR/NVR is "Inactive," highlight the DVR/NVR and enter a new password into the "New Password" field on the bottom right of the screen.

   - The password strength will be displayed, accompanied by a color indicator:

     - Level 0–*Risky* (no indicator): Not acceptable
     - Level 1–*Weak* (pink indicator): Acceptable
     - Level 2–*Medium* (yellow indicator): Acceptable
     - Level 3–*Strong* (green indicator): Acceptable

   - Bar length indicates strength level.

   - Activation will not be allowed unless the password is of acceptable strength. If the password is unacceptable strength ("Risky"), a warning box will be displayed.

3. Retype the password into the "Confirm Password" field.

4. After the password has been entered and confirmed, press the **OK** button to display the pop-up confirmation window.

5. Press the "X" in the top right corner of the pop-up confirmation window to dismiss the window.

- **iVMS-4200 Windows Client Software (v2.3.1.3 or higher) Activation**

  1. Launch the iVMS-4200 software.

  2. Go to **Control Panel→Device Management**.

     - On the bottom of the screen in the Online Devices section the screen will display all Hikvision devices on the network.

     - A new field called "Security" will be displayed.

  3. If the DVR/NVR is "Inactive," highlight the DVR/NVR and press the **Activate** button to display the "Activation" window.

  4. Enter a new password into the "Password" field.

     - The password strength will be displayed, accompanied by a color indicator:
       • Level 0–*Risky* (no indicator): Not acceptable
       • Level 1–*Weak* (pink indicator): Acceptable
       • Level 2–*Medium* (yellow indicator): Acceptable
       • Level 3–*Strong* (green indicator): Acceptable

     - Bar length indicates strength level.

     - Activation will be allowed if the password is of acceptable strength.

     - If the password is of unacceptable strength ("Risky"), a warning box will be displayed explaining the requirements for an acceptable password.

  5. Retype the password into the "Confirm Password" field.

  6. After the password has been entered and confirmed, press the **OK** button.

     - The DVR's/NVR's status will change to "Active."

- **Web Interface Activation**

    1. In a Web browser, type the DVR's/NVR's IP address and press **Enter**.

        - The Activation Window will appear instead of the login page.

    2. Enter a new password into the "Password" field.

        - The password strength will be displayed, accompanied by a color indicator:
            - Level 0–*Risky* (no indicator): Not acceptable
            - Level 1–*Weak* (pink indicator): Acceptable
            - Level 2–*Medium* (yellow indicator): Acceptable
            - Level 3–*Strong* (green indicator): Acceptable

        - Bar length indicates strength level.

        - Activation will be allowed if the password is of acceptable strength. A white checkmark will appear in a green circle to the right of the password field.

        - If the password is unacceptable strength ("Risky", a white X will appear in a red circle to the right of the password field and a warning dialog box will be displayed explaining the requirements for an acceptable password.

    3. Press the **OK** button.

        - Upon successful activation, user will be logged in to the DVR's/NVR's live view page.
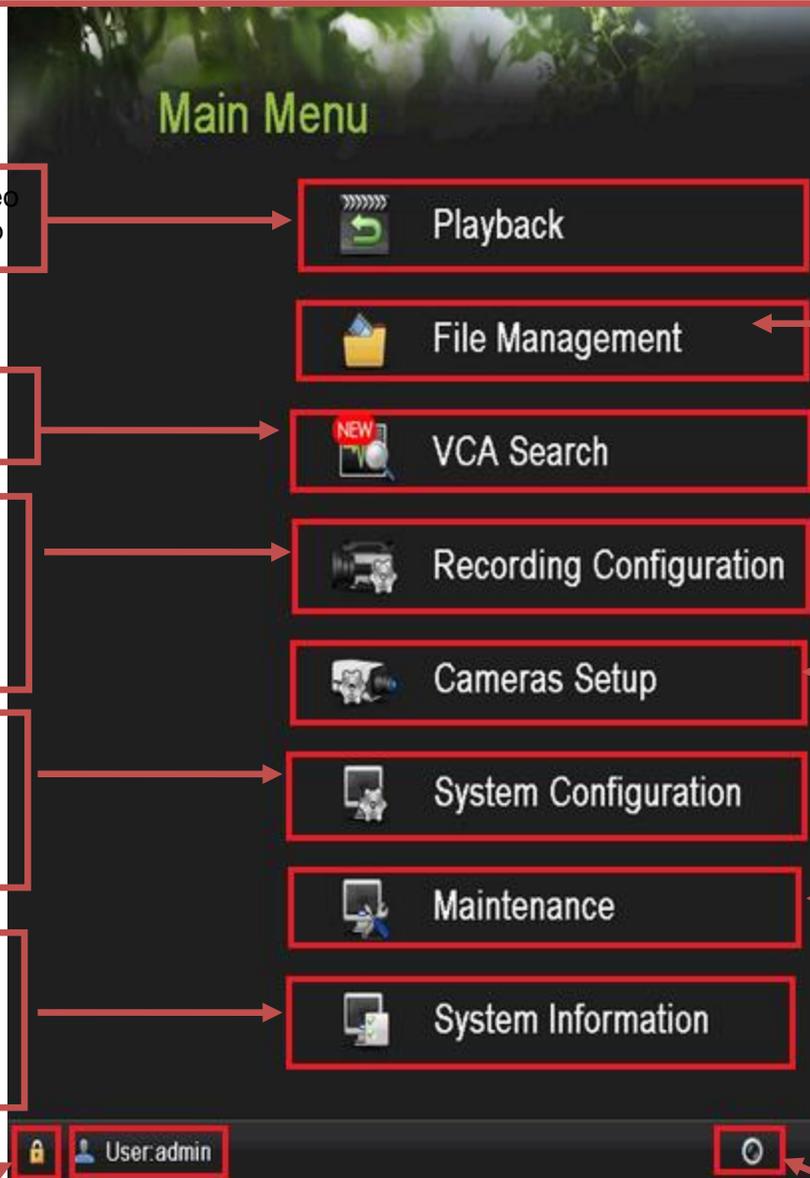
Password Strength Levels

STRENGTH LEVEL	DESCRIPTION
Level 0 (Risky) NVRs **will not** accept a Level 0 password	Password length is fewer than eight characters, contains only one type of character, is the same as the user name, and/or is the mirror writing of the user name. This type of password **will not** be accepted.
Level 1 (Weak) NVRs **will** accept a Level 1 password	Password contains two kinds of characters. The combination is number + lowercase letter or number + uppercase letter, and the password length is at least eight characters. This type of password **will** be accepted.
Level 2 (Medium/Fair) NVRs **will** accept a Level 2 password	Password contains two types of characters. The combination is **neither** number + lowercase letter *nor* number + uppercase letter, and the password length is at least eight characters. This type of password **will** be accepted.
Level 3 (Strong) NVRs **will** accept a Level 3 password	Password contains more than three types of characters, and the password length is at least eight characters. This type of password **will** be accepted.

NOTE: Types of characters are lowercase letters, uppercase letters, numbers, and special characters. Only ASCII characters are allowed.

3. MAIN MENU LAYOUT

DEFAULT USERNAME: admin
(Please note, that the username and password are case sensitive)

Main Menu

View recorded video and make Backup → **Playback**

Search for snapshots, make large backups → **File Management**

Search for VCA event → **VCA Search**

Setup recording type, motion detection, resolution and frame rate and more → **Recording Configuration**

Add cameras, Change brightness, contrast… Camera name, PTZ, Privacy mask → **Cameras Setup**

Setup Date/Time, network, screen settings, user accounts and more → **System Configuration**

Upgrade firmware, factory default, system logs, import/export settings → **Maintenance**

Model number, firmware version, camera status, HDD status and more → **System Information**

Log Out and Lock the NVR → 🔒

Display the current logged in user → 👤 User:admin

Exit MENU to Live View → ⊙

4. FORMATTING THE HARD DRIVE

If the Hard Drive (HDD) is not formatted (initialized), the NVR will begin to beep. The beeping will continue until the HDD is formatted. To format the HDD, go to:

"MENU" > "SYSTEM CONFIGURATION" > "HDD"
  Select the HDDs that need to be formatted, and press "INIT"

List of HDDs

Total HDD Space

Free Space

Estimated time of recording(days)

Please Note:

Units purchased with HDDs, already come with formatted HDDs

Formatting the HDDs also erases the recorded video from the HDDs (this does not affect the settings).

5. DATE AND TIME SETUP

To setup the Time and Date on a NVR, please go to:

"MENU" > "SYSTEM CONFIGURATION" > "GENERAL"

NTP Settings

Time Zone and Daylight Savings Time settings

Date and Time settings

6. SETTING UP NETWORK

Networking a NVR requires 3 steps:
1. Assign an **IP address, Default Gateway, Subnet Mask, and a DNS server (Please note: DNS, not DDNS)** to the NVR
2. Forward the appropriate ports on the router **(Port Forwarding)**.
3. Register **DDNS** (DDNS registration is required only if the public IP address is Dynamic).

To assigning an **IP ADDRESS**, go to **"MENU">"SYSTEM CONFIGURATION">"NETWORK"**

General

Select NIC Type

Enable DHCP
With DHCP enabled, the router will assign an IP address to the NVR

System Configuration

General Platform Access DDNS Email SNMP NAT More Settings

General		
Network	NIC Type	10M/100M/1000M Se
HDD	Enable DHCP	☑
Live View	IPv4 Address	10 .18 .2 .21
Exceptions	IPv4 Subnet Mask	255 .255 .255 .0
User	IPv4 Default Gateway	10 .18 .2 .254
	MTU(Bytes)	1500

IPv6 Address 1 fe80::8ee7:48ff:fe7b:81
IPv6 Address 2
IPv6 Default Gateway
MAC Address 8c:e7:48:7b:81:2f

DNS Server
Preferred DNS Server 10.1.7.88
Alternate DNS Server 10.1.7.77
Internal NIC IPv4 Addr... 192 .168 .254 .1

Please Note: After enabling DHCP, The IP configuration becomes "Greyed out"

REFRESH ↓

Refresh   Apply

IP CONFIGURATION
Please note that the NVR's default IP Address is set to 192.0.0.64

Step 1.
  Enable DHCP (check the checkbox). Press **"APPLY"** and then press **"REFRESH"**
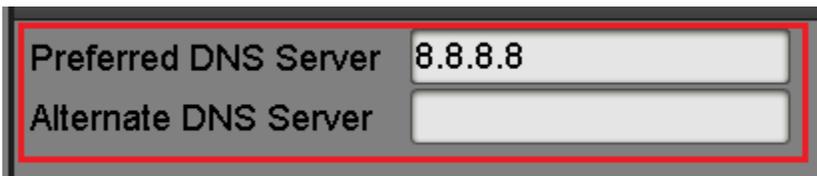
Step 2.
 After pressing refresh, the **IPv4 Address**, **IPv4 Subnet Mask** and **IPv4 Default Gateway** will have new values.

Step 3.
 Disable DHCP (uncheck the checkbox)

Step 4.
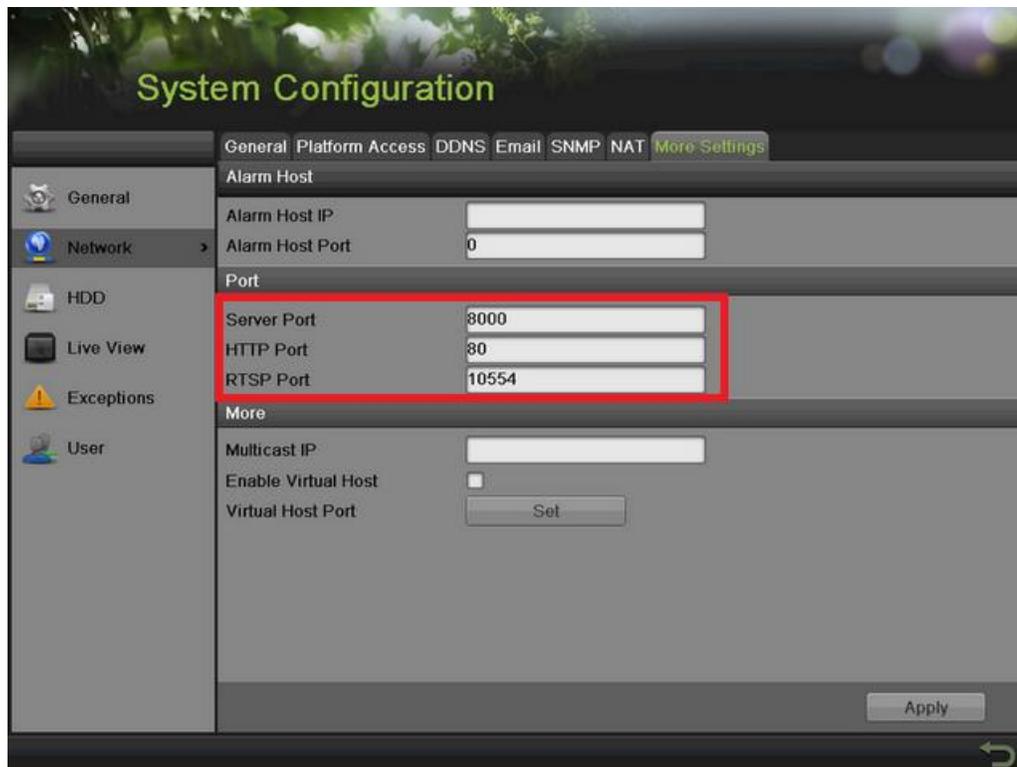 Change the value of **"PREFFERED DNS SERVER"** to **8.8.8.8** ("ALTERNATE DNS SERVER" can be left blank).

Preferred DNS Server	8.8.8.8
Alternate DNS Server	

After assigning the IP information, click on the **"MORE SETTINGS"** tab

System Configuration

General Platform Access DDNS Email SNMP NAT More Settings
Alarm Host
General

The **"MORE SETTINGS"** tab contains the ports that need to be forwarded for remote access

The **SERVER PORT** is responsible for the **MOBILE APP** and **CLIENT SOFTWARE** log-in.
The **HTTP PORT** is responsible for **WEB BROWSER** log-in.
The **RTSP PORT** is responsible for **VIDEO/AUDIO STREAMING**.

The **HTTP PORT** and the **SERVER PORT** can be changed if desired, in order to avoid conflicts with the **ISP** or the existing network configuration.

PORT FORWARDING

After assigning the IP information to the NVR, connect a computer to the same router that the NVR is connected to (wired connection is recommended, to avoid complications). Log into the **ROUTER**, and proceed with **PORT FORWARDING**.

For **PORT FORWARDING** assistance contact the Internet Service Provider **(ISP)**, or the router manufacturer. Also refer to www.portforward.com for port forwarding step by step instructions. Please be aware, that Hikvision USA is not associated with www.portforward.com, and not responsible for any activity between the user and www.portforward.com. Please refrain from downloading any software from the abovementioned website.
Proceed to the **"ROUTERS"** section for step by step instructions.

DDNS SETUP

DDNS registration has been made more user friendly, and takes only a few seconds to complete. The legacy units require user registration on www.hik-online.com. This step is no longer needed.
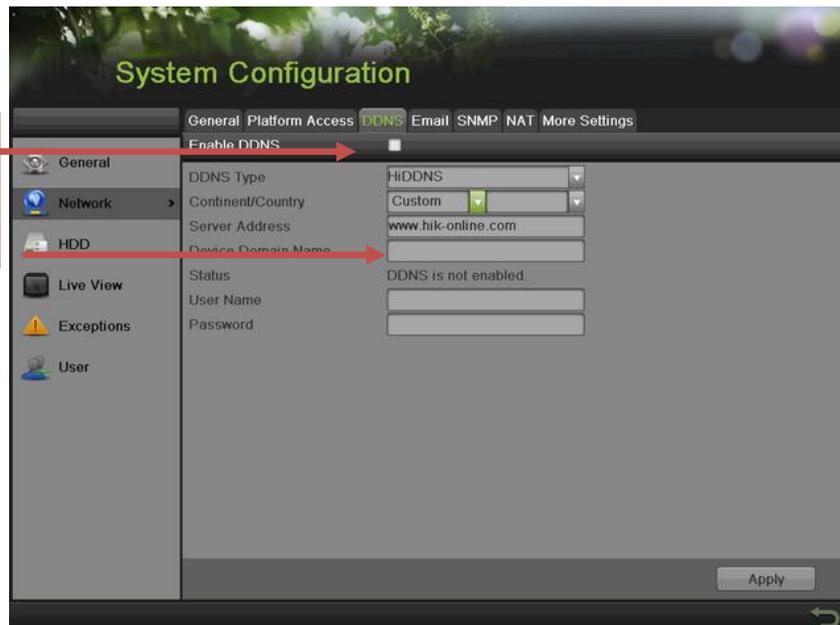
Click on the DDNS tab
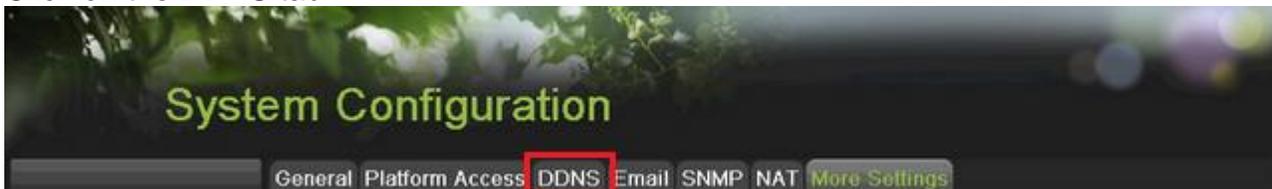
In the **DDNS** tab:
   a. Enable DDNS
   b. Change the **DDNS TYPE** to **HiDDNS** (in some cases **HkDDNS**)
   c. Make sure that the **SERVER ADDRESS** is set to www.hik-online.com
   d. Create a **DEVICE DOMAIN NAME** (the domain name CANNOT contain **spaces, special characters and/or upper case letters, as well as it cannot begin with a number**)

Enable DDNS and create a DOMAIN NAME

After the changes have been made, presses **"APPLY".** Status will be changed to **"Register success"**.

If the Domain Name does not meet the acceptable criteria, and/or is already registered, an error message will appear(The domain name cannot contain upper case characters, begin with a number, spaces, special characters…).

Platform Access SETUP

Enable EZVIZ P2P and click Apply. When Status change to Online, the function is enabled.

EZVIZ is used for a connection through a secure server. In this case port forwarding is not required.
Please contact Technical Support for more details.

7. ADDING IP CAMERAS

Go to:

"MENU">"CAMERAS SETUP"

Press the **"MINUS"** icon to delete an added camera

Press "**EDIT**" to change the camera's IP address.

Press **"+"** to add the camera to the NVR

Please refer to the manual for detailed information

"REFRESH" to find cameras connected to the network
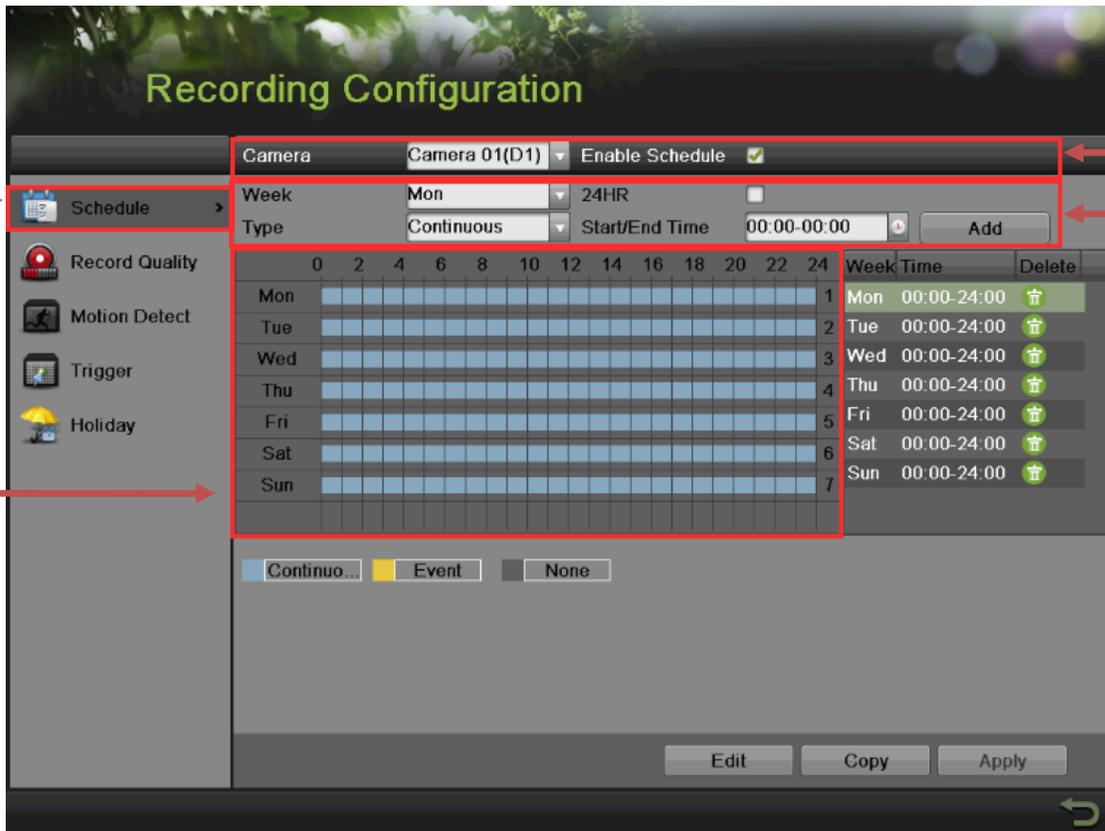
List of detected cameras **(YELLOW)**

List of added cameras **(WHITE)**

Please note: To change the CAMERA NAME go to **OSD**

8. SETTING UP RECORDING

Hikvision NVRs are defaulted to **CONTINUOUS RECORDING**.

Please go to: **"MENU">"RECORDING CONFIGURATION"**

Setup Recording Schedule (Continuous/Event)

The color of the calendar is what constitutes the recording schedule:
1. **Blue=Continuous**
2. **Yellow=Event (Motion/Alarm/VCA)**
3. **Grey= No Recording**

This field is used to customize a part of the existing schedule
This can be ignored if setting up event only recording

**Please note:** If **ENABLE SCHEDULE** is not checked, then that camera would not be recording

Select the camera. Enable/Disable the schedule

To set the NVR to **MOTION RECORDING**, go to:

1. "MENU">"RECORDING CONFIGURATION"
2. Click on the **"EVENT"** under the calendar (yellow). After this the mouse cursor will change to a **WAND**.
3. Select the calendar, and it will turn **YELLOW** (just like on a computer, click on the top-left corner of the calendar and drag to the bottom-right corner).
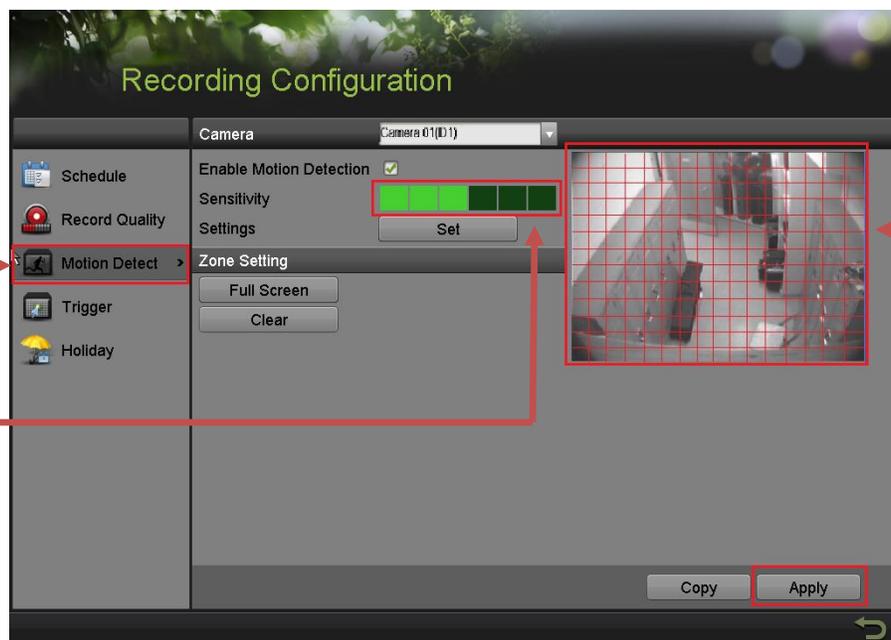4. Press **APPLY.**
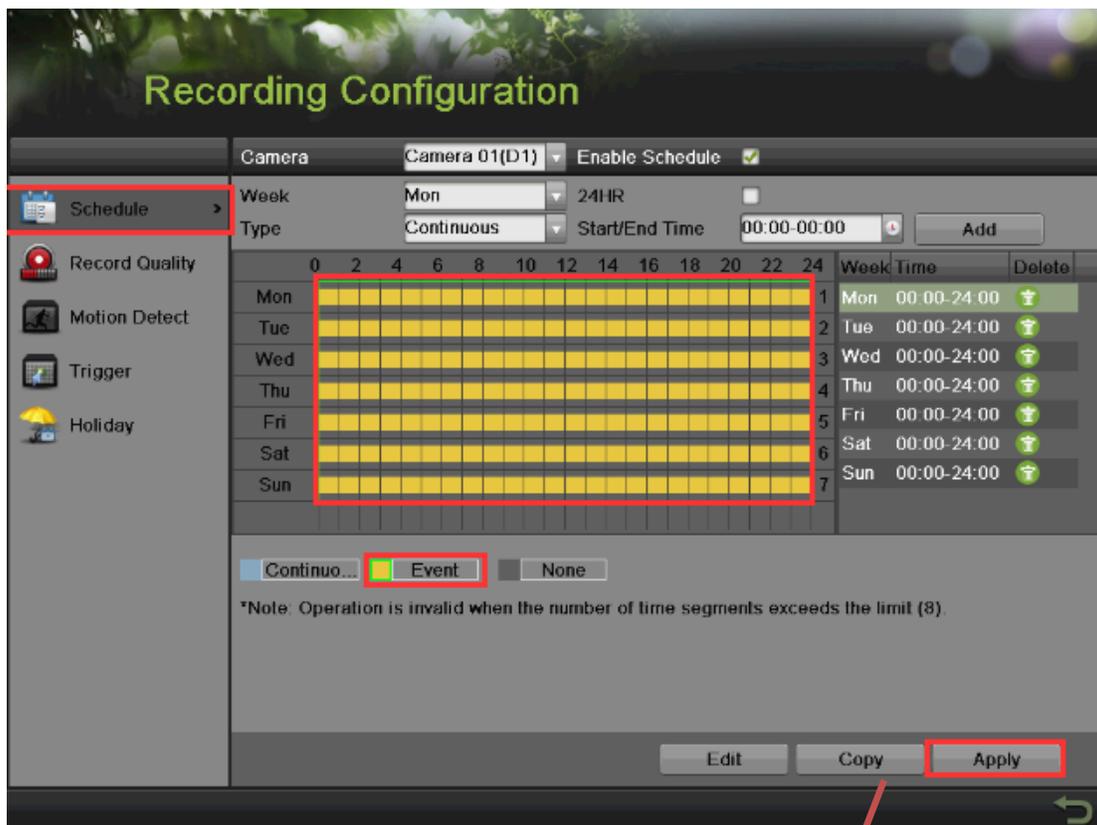
5. Press **COPY** to copy the new schedule to the remaining cameras.
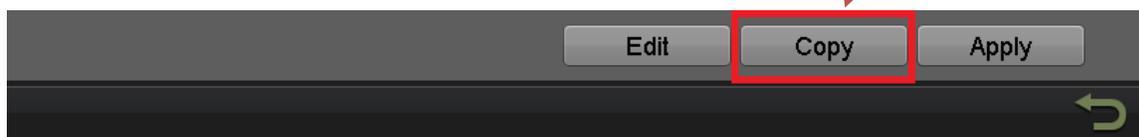
After the recording has been set to **"EVENT RECORDING"** go to **"MOTION DETECT"** to set the motion detection for every camera. In this step, the IP cameras need to be configured individually.

Motion Detection Setup

Motion Sensitivity
The amount of bright green squares indicates the sensitivity level. (in this picture the sensitivity is set to 3)

Motion Area
The grid indicates the area, where motion will be detected

To set the recording **RESOLUTION/FRAMERATE/BITRATE** settings, please go to:

"RECORD QUALITY" in the **"RECORDING CONFIGURATION"** submenu

Select Main Stream

Record Quality

Select Camera

Continuous
Pertains to live view image as well as continuous recording

Event
Pertains to event recording only (Motion or alarm)

Stream Type allows enable/disable the audio streaming from the cameras (if the camera does not have audio capabilities, then the **Stream Type** will only have **Video** option)

Resolution allows setting of the recording resolution

Bitrate Type allows the NVR to save HDD space when set to **Variable** (Available choses: **Variable** and **Constant**)

Video Quality adjusts picture clarity (**medium setting (3 green squares)** is recommended. Medium setting is the balance between good picture and saving HDD space).

Frame Rate allows setting of the recording frame rate (**12-15 fps** is recommended to save HDD space and not to have a "choppy" image)

Max Bitrate Mode allows choosing between preset bitrate values and customizing the values (**General** setting is recommended)

Max Bitrate (KBPS) is the chosen bitrate for streaming the video

Max Bitrate Recommended is the NVR's recommended bitrate according to the parameters set above.

Record Audio allows turning the audio recording on or off (this option is only available if the camera has a microphone connected to it, or only the analog channels 1-4 on the hybrid NVR).

Video Stream allows changing the recording stream between **Main Stream** and **Sub Stream** (this step requires a restart).

Please refer to the table below for recommended recording parameters

Resolution	Video Quality	Frame Rate (FPS)	Bitrate (KBPS)
320x240 (QVGA)	Medium (3 squares)	12-15	207
352x240 (CIF)	Medium (3 squares)	12-15	384
640x480 (VGA)	Medium (3 squares)	12-15	768
704x480 (4CIF)	Medium (3 squares)	12-15	1024
1280x720 (720P)	Medium (3 squares)	12-15	2048
1280x960 (960P)	Medium (3 squares)	12-15	2048
1600x1200 (2MP)	Medium (3 squares)	12-15	2560
1920x1080 (1080P)	Medium (3 squares)	12-15	3072
2048x1536 (3MP)	Medium (3 squares)	12-15	3072
2560x1920 (5MP)	Medium (3 squares)	8	4096

Last step in the recording setup is setting up the **Sub Stream**.
The **Sub Stream** is used for streaming on mobile devices, as well as displaying multiple cameras on the local output

Select Sub Stream

Record Quality

Recording Configuration

Main Stream Substream Record Capture

Camera	Camera 01(D1)
Stream Type	Video & Audio
Resolution	352*240(CIF)
Bitrate Type	Variable
Video Quality	
Frame Rate	Full Frame
Max. Bitrate Mode	General
Max. Bitrate(Kbps)	512
Max. Bitrate Recommended	512(Kbps)

Schedule

Record Quality   >

Motion Detect

Trigger

Holiday

Copy   Apply
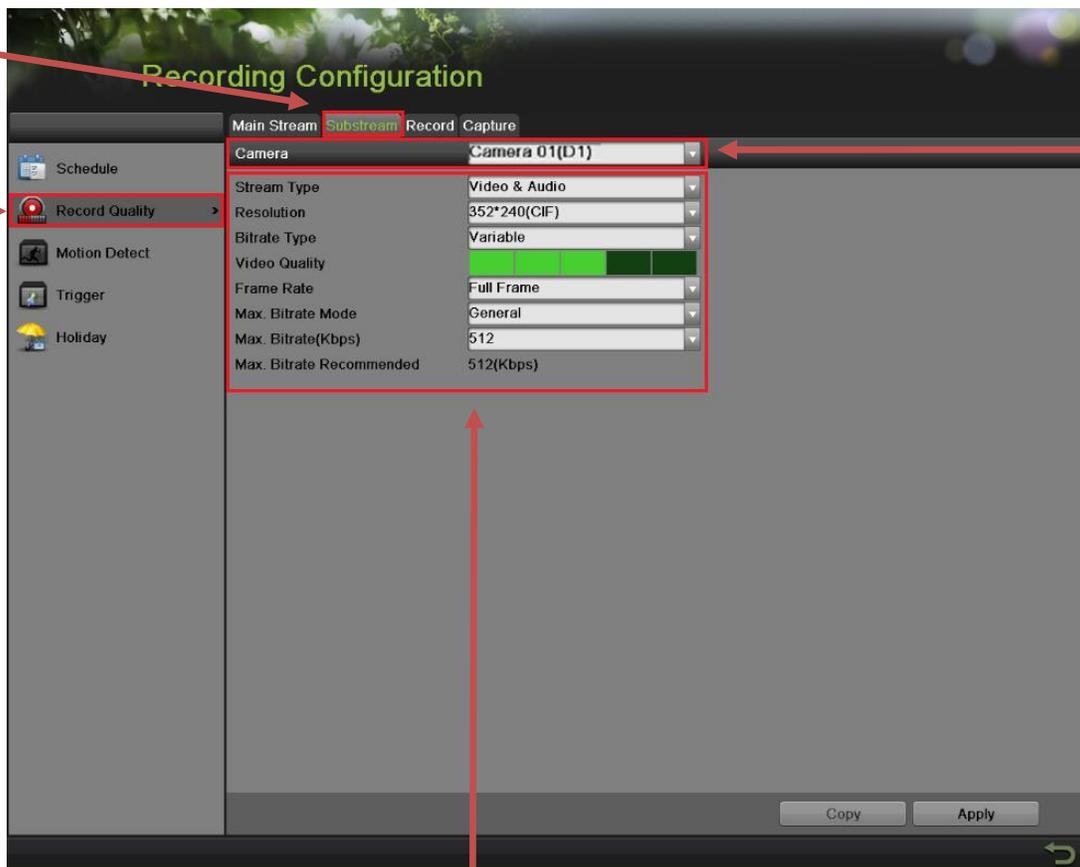
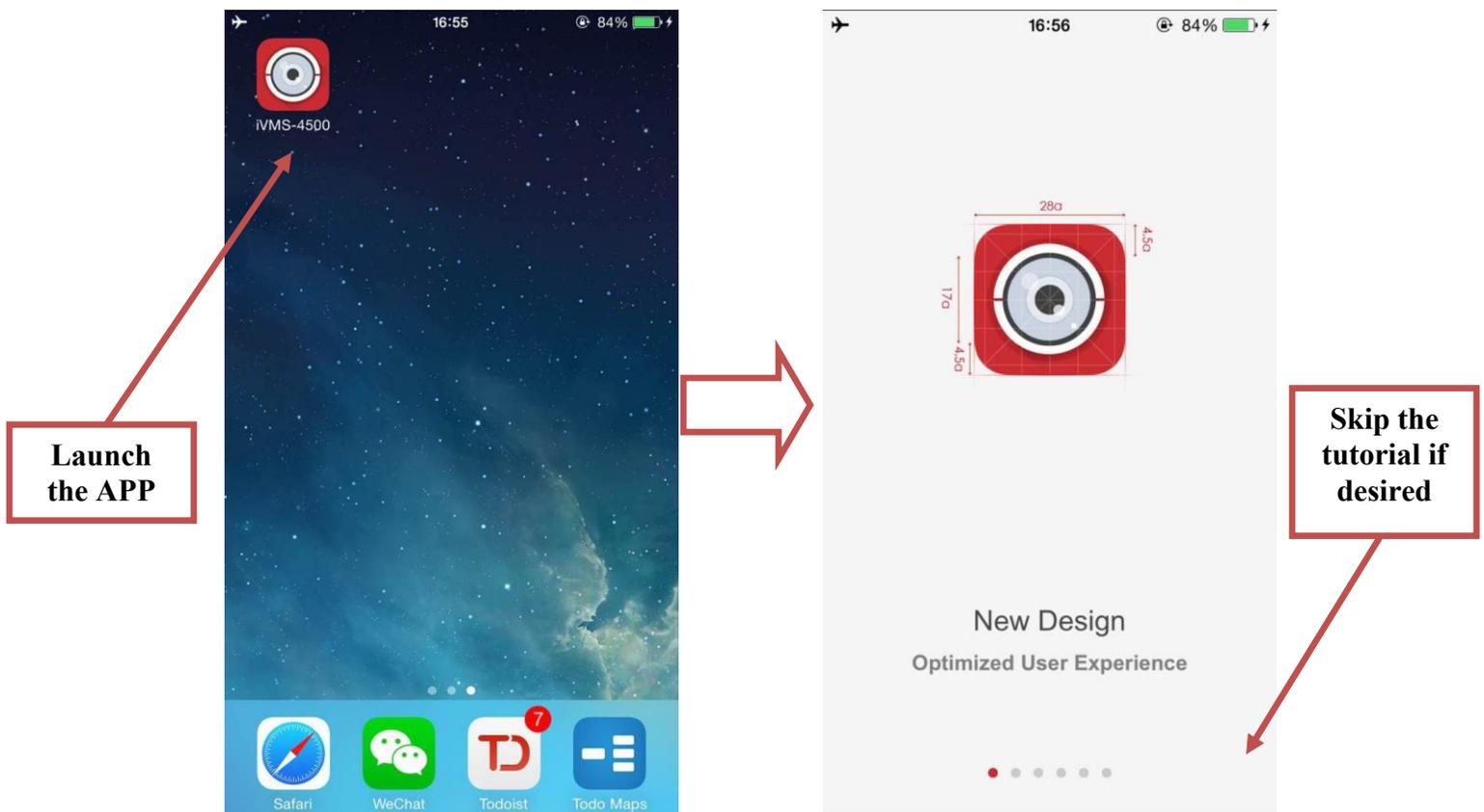Unlike Main Stream,
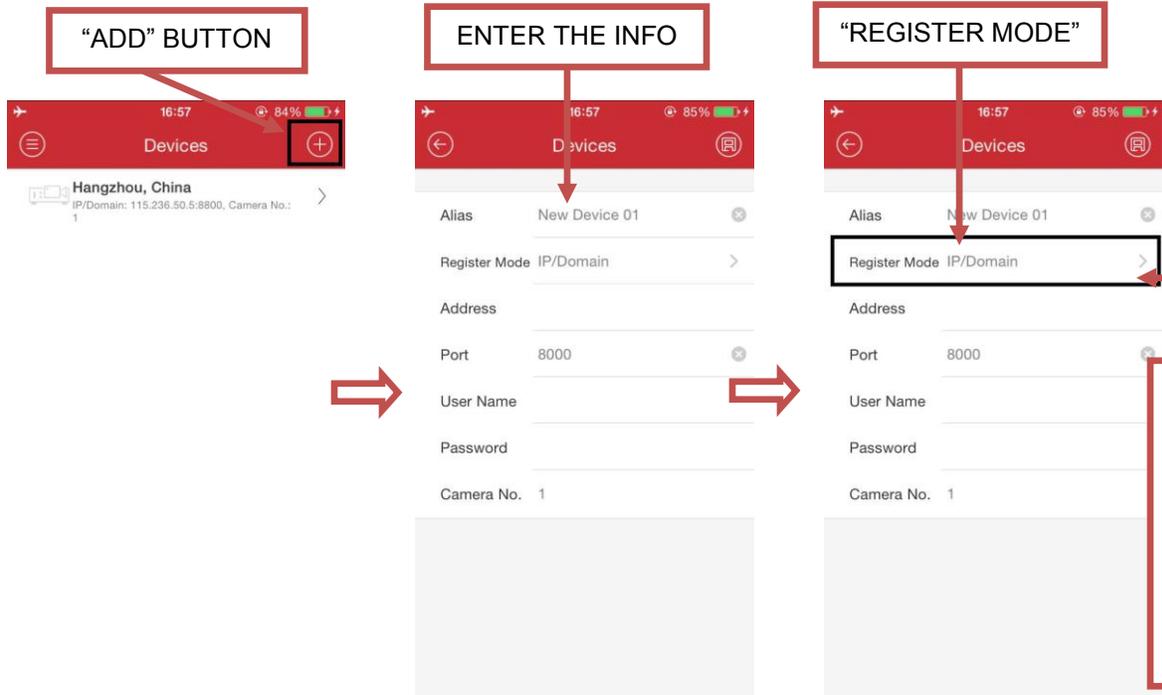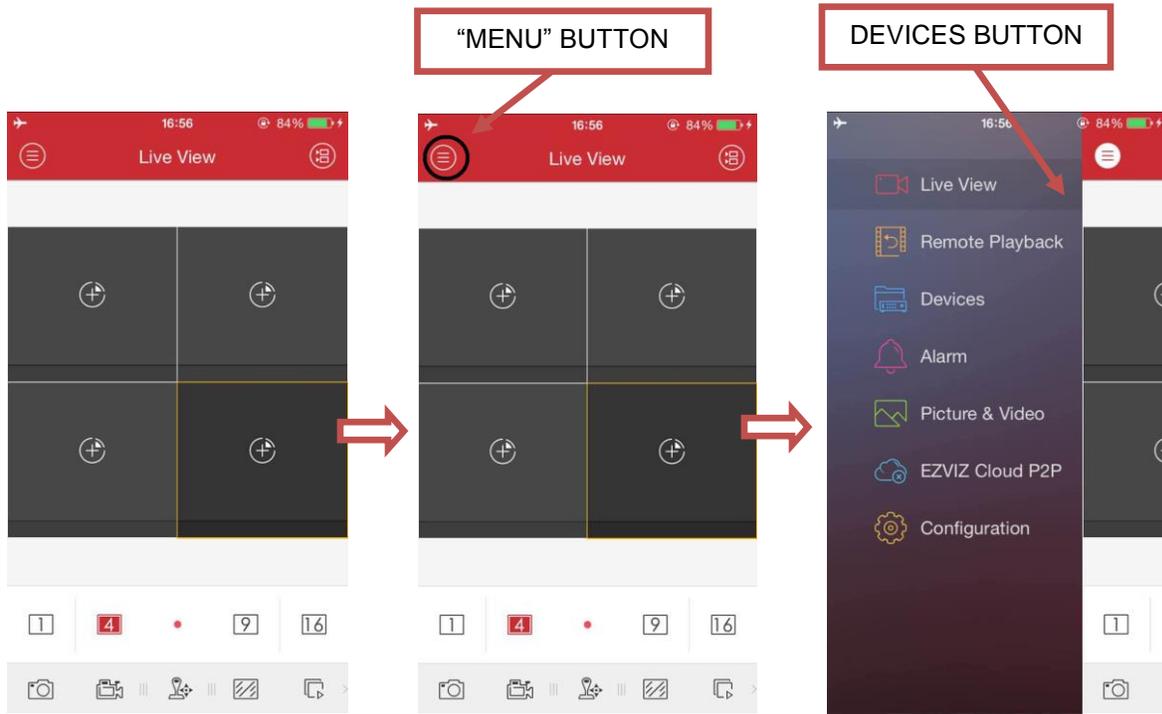**Sub Stream** can only go up to **4CIF**

Select Camera

Please note: If the upload speed is not sufficient, consider lowering the frame rate/bitrate/resolution for more fluent mobile app viewing.

9. CONFIGURING THE MOBILE APP

All Hikvision DVRs, NVRs and IP Cameras can be accessed with **iVMS-4500 application.**
The APP can be downloaded from the **APP STORE (iPhone/iPad), PLAYSTORE (Android)**.
The app is also available for **WINDOWS MOBILE** devices (Nokia Phones and tablets).

Download the app from the appropriate place and launch it. When the APP is launched for the first time, a tutorial screen will be displayed, and it can be easily skipped.

Launch the APP

Skip the tutorial if desired

"MENU" BUTTON

DEVICES BUTTON

16:56   84%
Live View

16:56   84%
Live View

16:56   84%

- Live View
- Remote Playback
- Devices
- Alarm
- Picture & Video
- EZVIZ Cloud P2P
- Configuration

"ADD" BUTTON

ENTER THE INFO

"REGISTER MODE"

16:57   84%
Devices   ⊕

Hangzhou, China
IP/Domain: 115.236.50.5:8800, Camera No.: 1

16:57   85%
Devices

Alias	New Device 01
Register Mode	IP/Domain
Address	
Port	8000
User Name	
Password	
Camera No.	1

16:57   85%
Devices

Alias	New Device 01
Register Mode	IP/Domain
Address	
Port	8000
User Name	
Password	
Camera No.	1

Please Note:
If free HikVision DDNS is configured for the device, change the **"REGISTER MODE"** to **HiDDNS**

www.hikvision.com/en/us

HIKVISION

CHANGE THE MODE

ENTER "DEVICE DOMAIN"

COMPLETE THE PAGE

User Name and **Password** are the NVR's username and password

Please note: The "CAMERA NUMBER" is set to **1**. After saving the changes, the number will resemble the correct amount of cameras

"SAVE" BUTTON

Please note: Choose device you just added and back to the live view interface will begin live camera stream.

Please note: The "CAMERA NUMBER" has changed to the correct number of cameras connected to the NVR

10. PLAYING BACK RECORDED VIDEO

To initiate a **PLAYBACK**, go to **"MENU">"PLAYBACK"**.

"Full Screen" button. Going to a full screen view

Normal
- Normal
- Event
- Tag
- Smart
- Sub-periods
- External File

Max. Ca... Min. Ca...
- Camera 01
- IPCamera 02
- IPCamera 03
- IPCamera 04
- ✓ Camera 01
- Camera 01
- IPCamera 07
- IPCamera 08
- IPCamera 09
- IPCamera 10
- IPCamera 11
- IPCamera 12
- IPCamera 13
- IPCamera 14

Select a camera to

Select the desired date to playback

Press PLAY to begin playback

Click on the timeline to select the desired time of

◀ Jun ▶   ◀ 2015 ▶
S	M	T	W	T	F	S
		1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

2015-06-18 20:54:49 -- 2015-06-30 14:05:08

12:24:17

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Normal Event
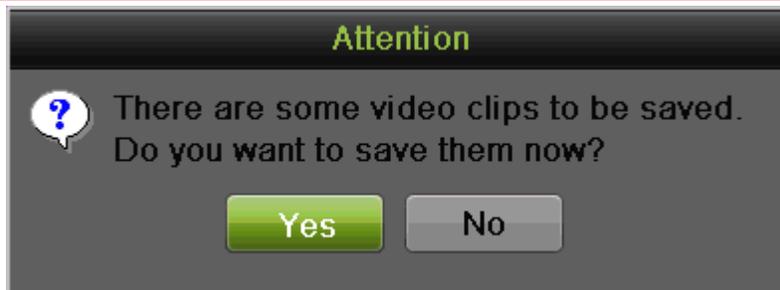
Steps to initiate **PLAYBACK**
1. Select the desired camera
2. Select the desired date. The days that contain recording will be highlighted on the calendar
3. Press "PLAY"
4. Select the desired time using the Timeline or "Jump to Time" feature.

11. MAKING A BACKUP

Exit and save clip

START/END Clipping

Select the "START TIME"
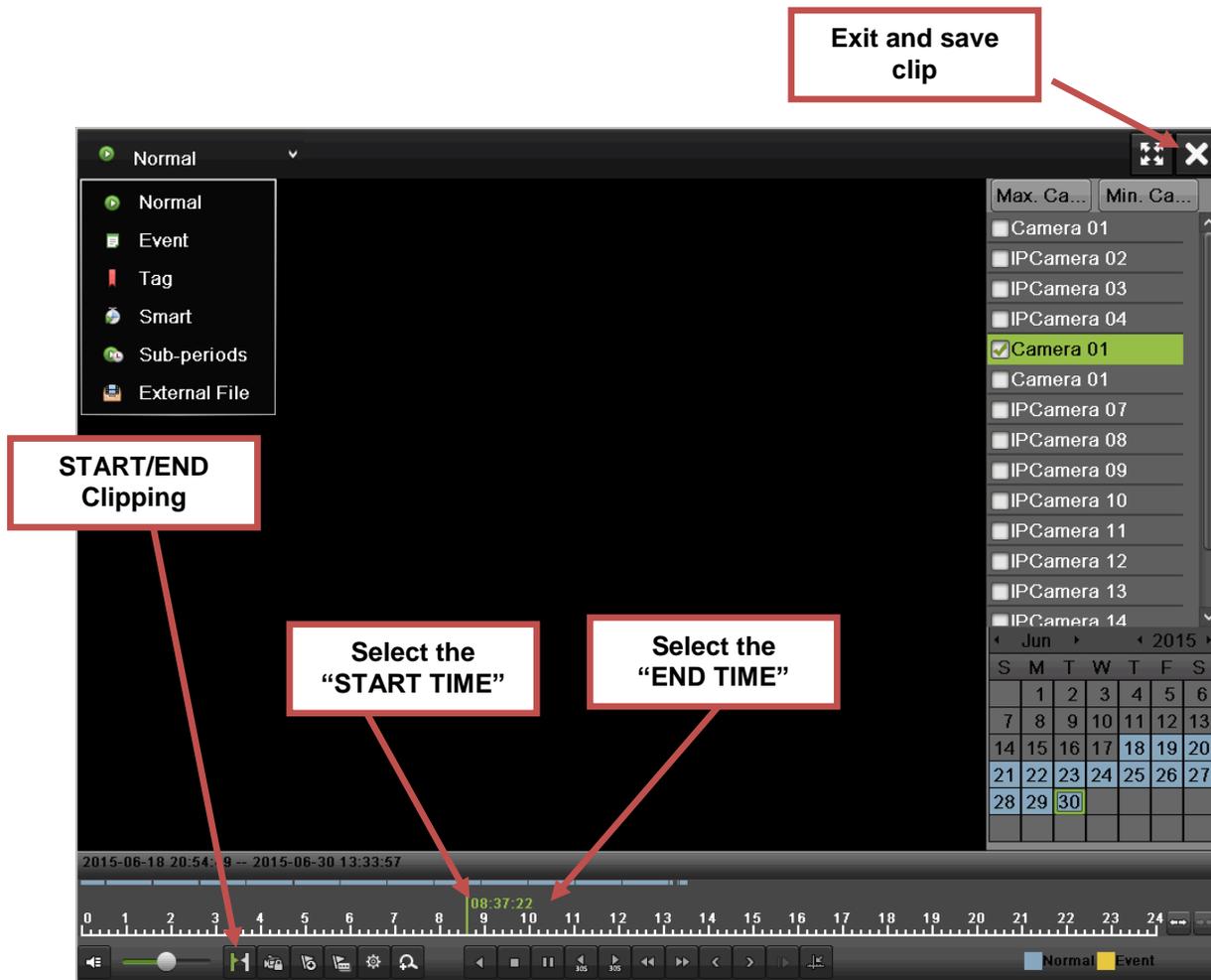
Select the "END TIME"

Steps to make a **BACKUP** of recorded video
1. Insert a USB FLASH Drive or a USB HDD into an available USB Port
2. Go to **"MENU">"PLAYBACK"**
3. Select the DATE and beginning time of the incident
4. Click **"START CLIPPING"**
5. Select the ending time of the incident
6. Click **"END CLIPPING"** (Same button as "Start Clipping")
7. Repeat steps 1-7 as many times as required
8. Click **"EXIT"** or right-click.
9. Click **"YES"** to save clipping.

Attention

❓ There are some video clips to be saved.
Do you want to save them now?

Yes   No

After pressing **"YES** a new window pops up containing all saved clips.

File Management

Video Clips | Locked File | Tag

☑ Camera No.	Start/End Time	Size
☑ D5	2015-06-30 08:33:01--08:33:02	1319.26KB
☑ D5	2015-06-30 09:39:38--09:39:40	1337.58KB

06-30-2015 Tue 08:32:57

Camera 01

Camera with clip recording: 5

Start time:
2015-06-30 08:33:01

End time:
2015-06-30 08:33:02

Total: 2 P: 1/1

Selected clips: 2

Total size: 2656.83KB ☐ Merge files to export   Export All   Export   Cancel
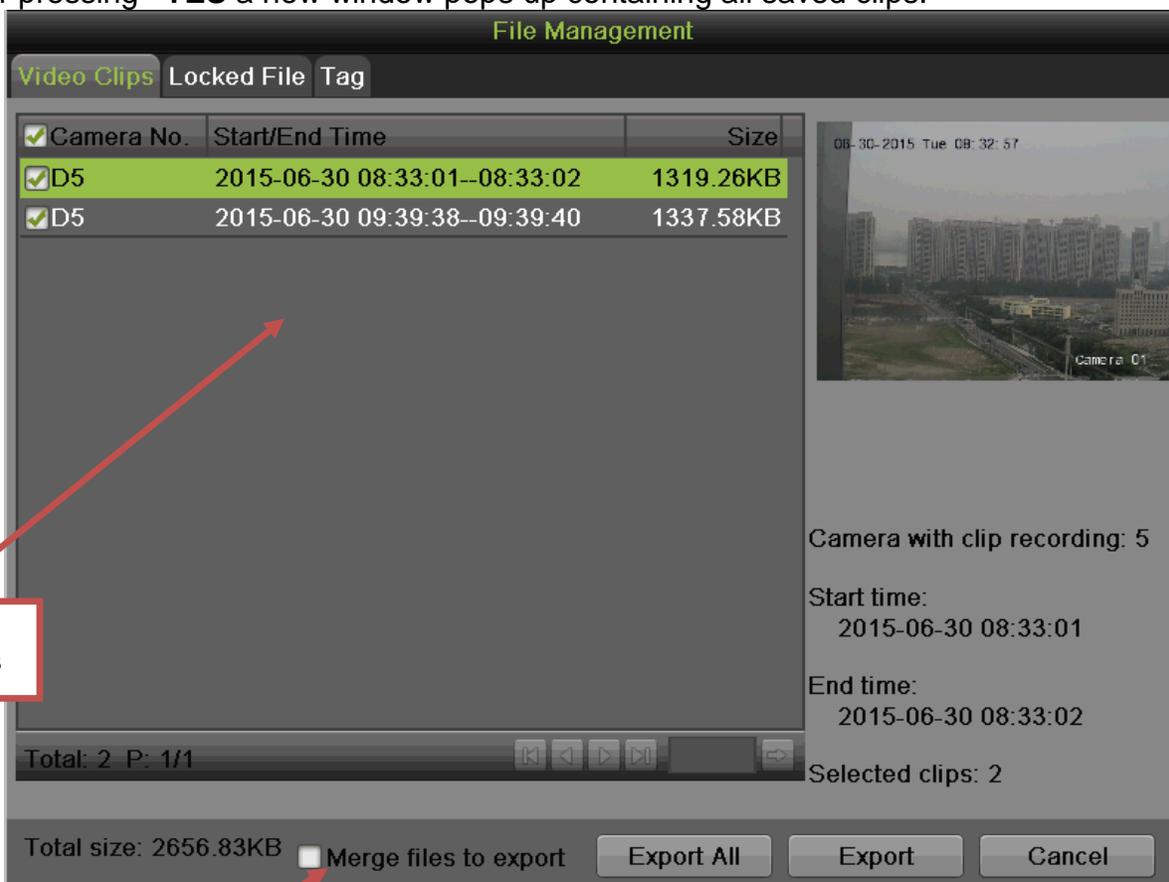
Select the desired clips

If selected, multiple clips created from the same camera will be stitched together

EXPORT THE CLIPS TO USB DEVICE

10. Select the desired clips
11. Press "EXPORT"
12. After the backup is complete, simply remove the USB FLASH Drive or the USB HDD.