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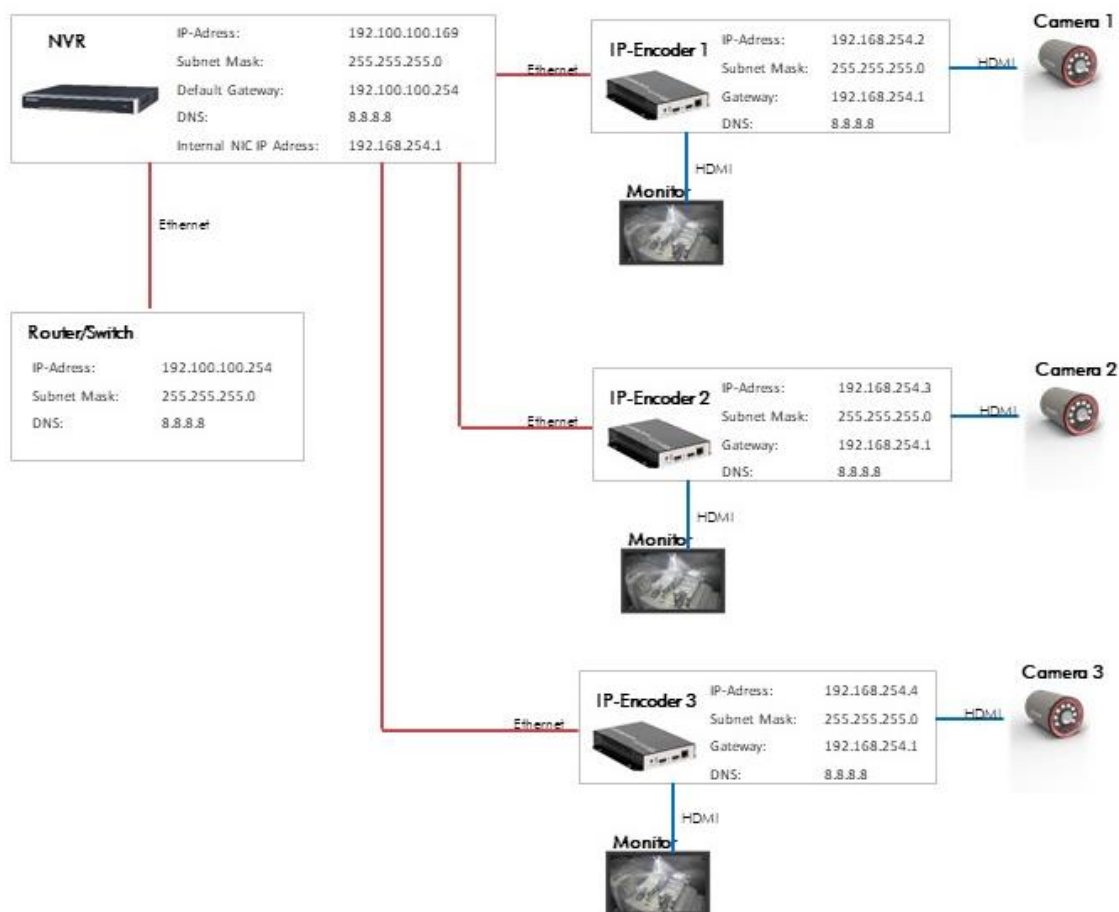
These instructions are for the NVR DS7616NI-K2 / 16P with firmware V4.030.011

1 General structure

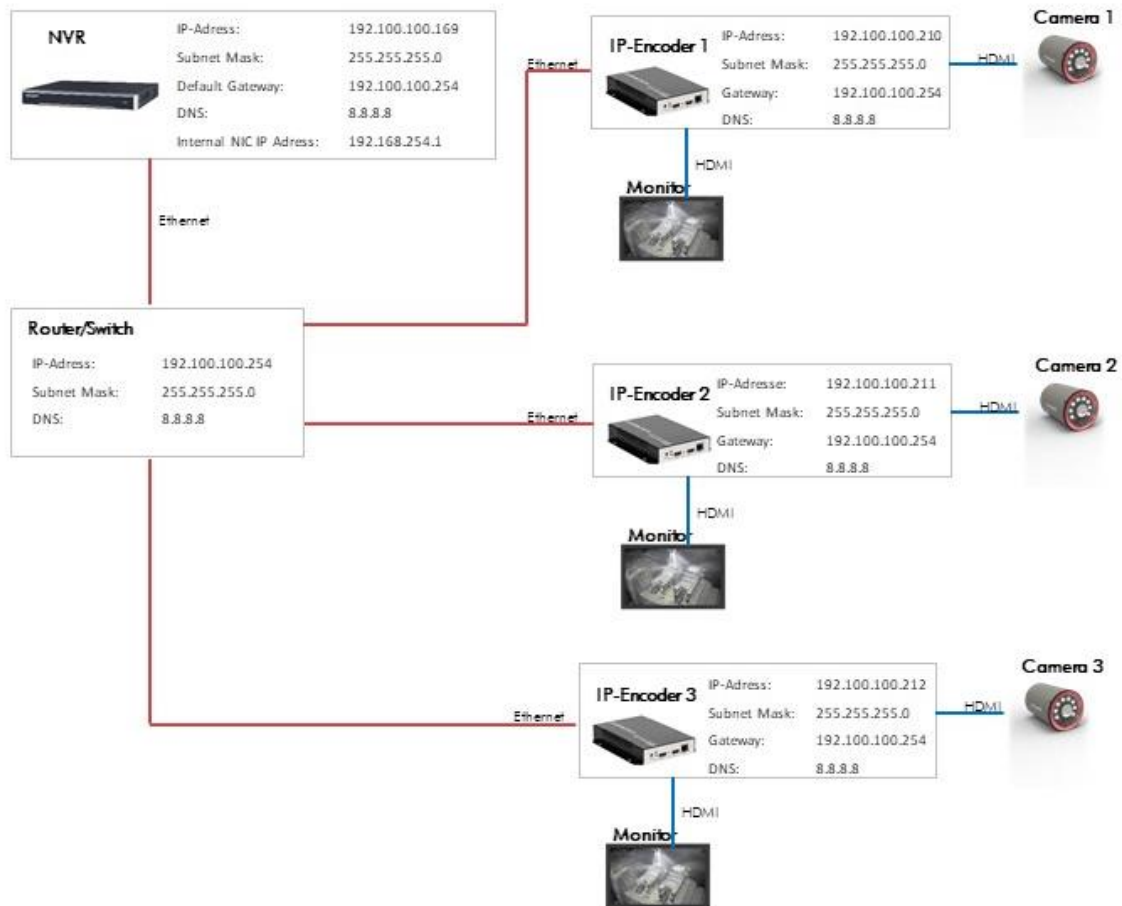
The aim of the following description is to install an UYAR Video Encoder (UVE) for networking with a Hik Vision network video recorder (NVR). There are several ways in which the UVE can be connected to the NVR.

In general, it must first be considered how the UVE should be connected to the NVR. One possibility is to connect the network cable directly to the NVR. The second option is to feed the video signal into the home network at first, the video signal is then routed to the NVR via the router. A mixed form can also be selected. It is important to think about which variant should be used before installation in order to select the default settings on the UVEs accordingly. To better illustrate how the structure could take place and how the IP address / subnet mask / default gateway should be selected, the following graphic illustration should help to improve understanding.

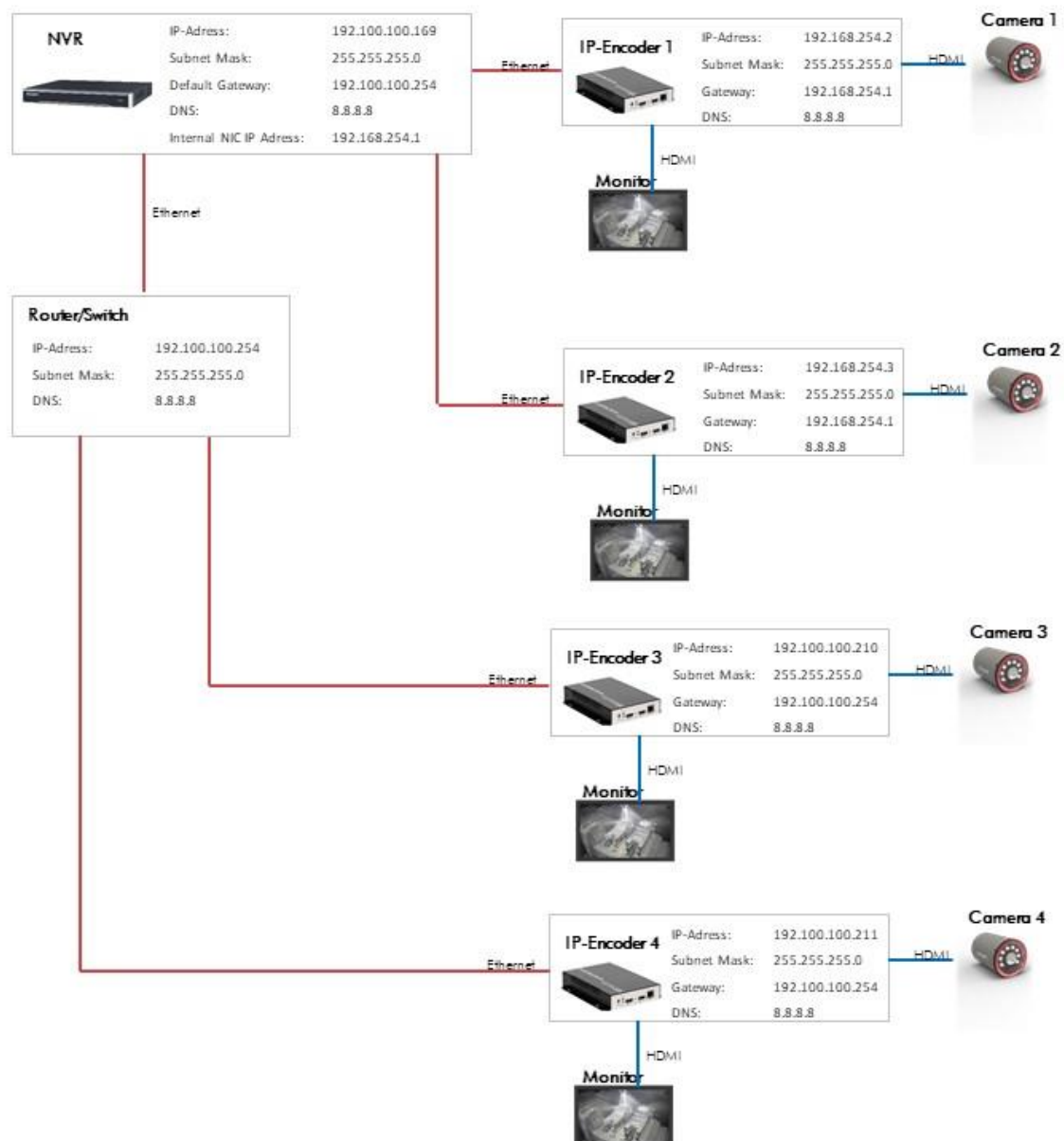
1.1 Connect the IP encoder directly to the NVR



1.2 Connect the IP encoder to the router



1.3 Mixed form



2 Configuration Uyar-Video-Encoder

2.1 Reset

Note: Please do not reset the device if it has been pre-commissioned by Uyar.

There is a reset button (RST) on the front side of the IP encoder, which is used to carry out an initialization reset of the encoder. If you are using the device for the first time, it is essential to perform the reset after switching it on or after it has started up. Use a needle / paper clip and press the reset button for about 8 seconds. This initializes all parameters.



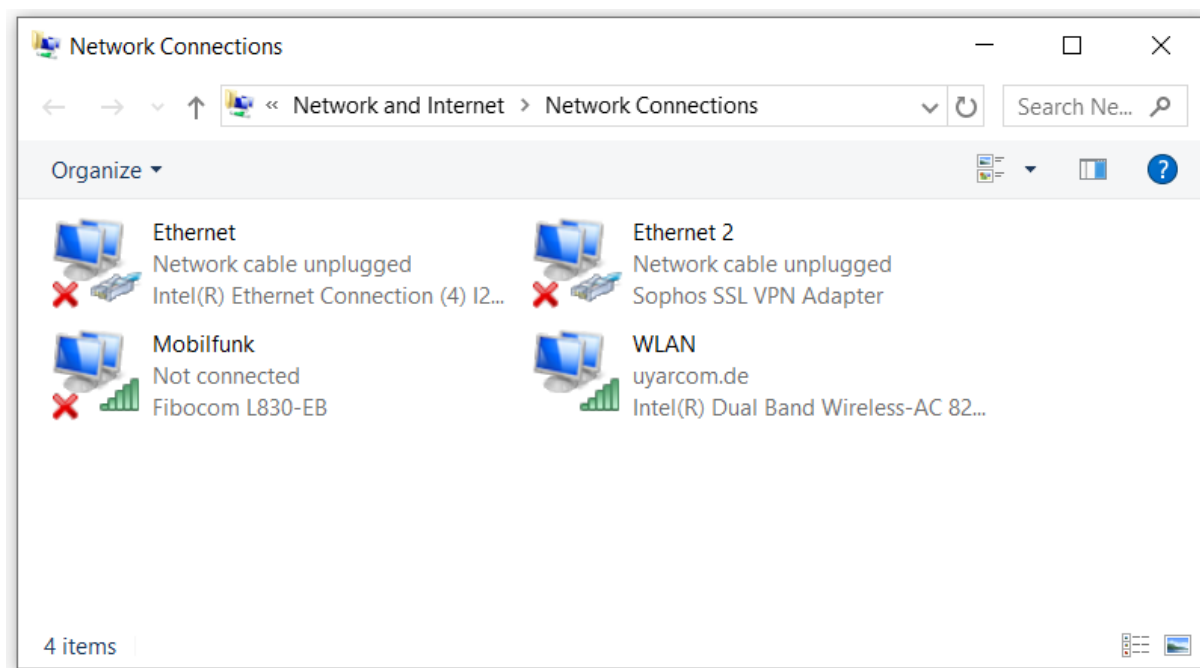
2.2 Make settings on the PC

The standard IP address of the UVE is 192.168.0.31. The default username and password are both "admin".

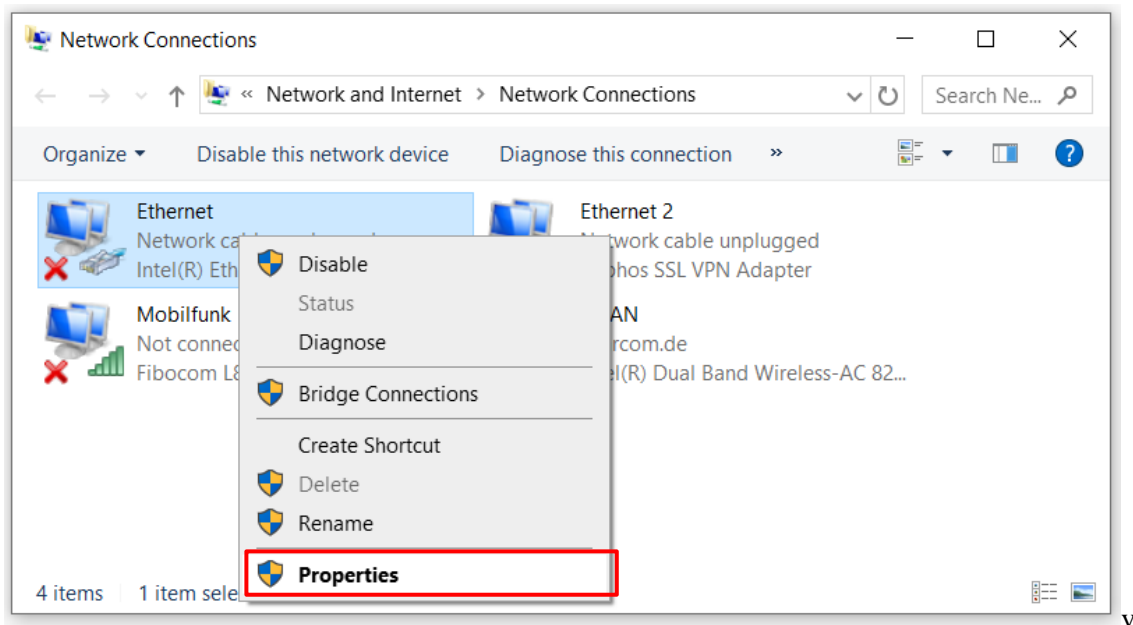
Most customers cannot log into the UVE's user interface by entering 192.168.0.31 directly in the browser's address line. The reason is that the IP address of the PC is not in the same network segment and they cannot communicate with each other. In order to log into the user interface of the UVE, the IP address of the PC must first be changed.

Step 1: Connect the UVE to a PC / laptop using an Ethernet cable

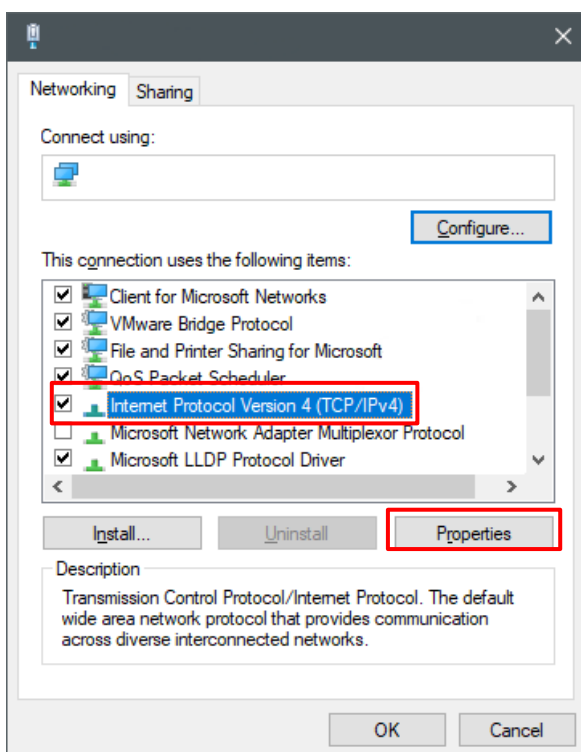
Step 2: Open "View network connections"



Step 3: Right mouse button> open properties (in some cases the user has to enter the administrator password)

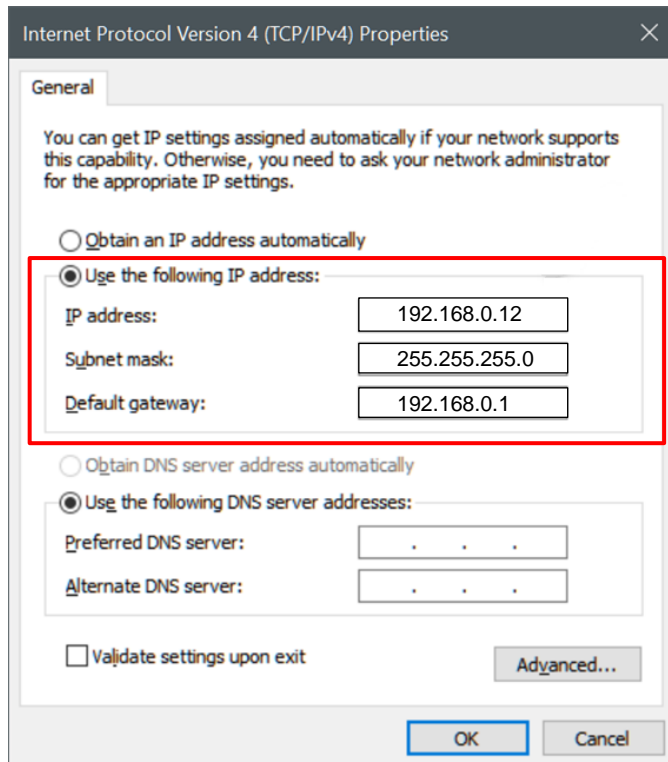


Step 4: Select "Internet Protocol Version 4 (TCP / IPv4)" and then click Properties

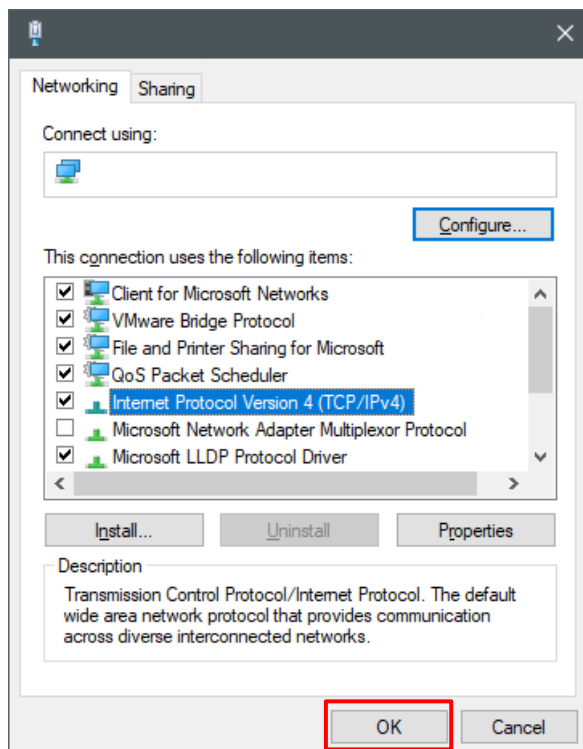


Step 5: Please make a note of your IP address and standard gateway before you make the following changes. Your standard settings, because these standard settings must be set again after you have made the settings. Set the IP address to 192.168.0. ** (** can be a number between 2 and 255, except 31). Set the subnet mask to 255.255.255.0 and the standard gateway to 192.168.0.1

Complete the entry with "OK"



Step 6: Complete the entry with "OK"

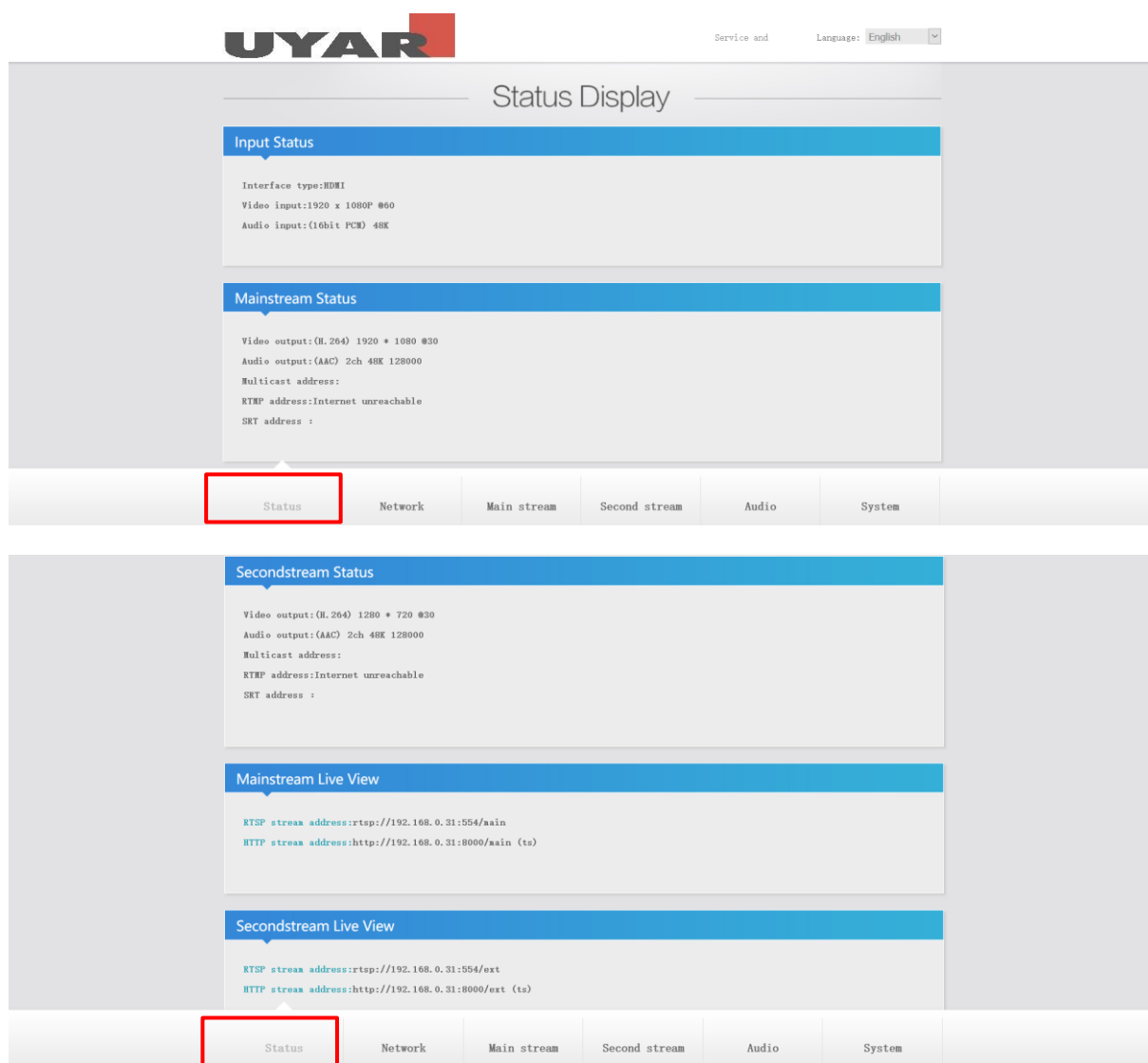


2.3 Settings on the UVE

Important: A camera must be connected to the Uyar video encoder and switched on! Otherwise the setting of the second stream is not possible correctly.

Step 1: Open your browser and enter 192.168.0.31 in the address bar. A password query will then open. Enter "admin" for the user name and "admin" for the password. Now the user interface of the UVE opens.

Step 2: In the user interface of the UVE you are first in the "Status" window. Information about the current settings of the main- and substream can be read out here



Step 3: Under "Network", adapt the LAN settings to your corresponding network environment. The following settings depend on your planned setup.

Case 1.1 connecting the IP encoder directly to the NVR:

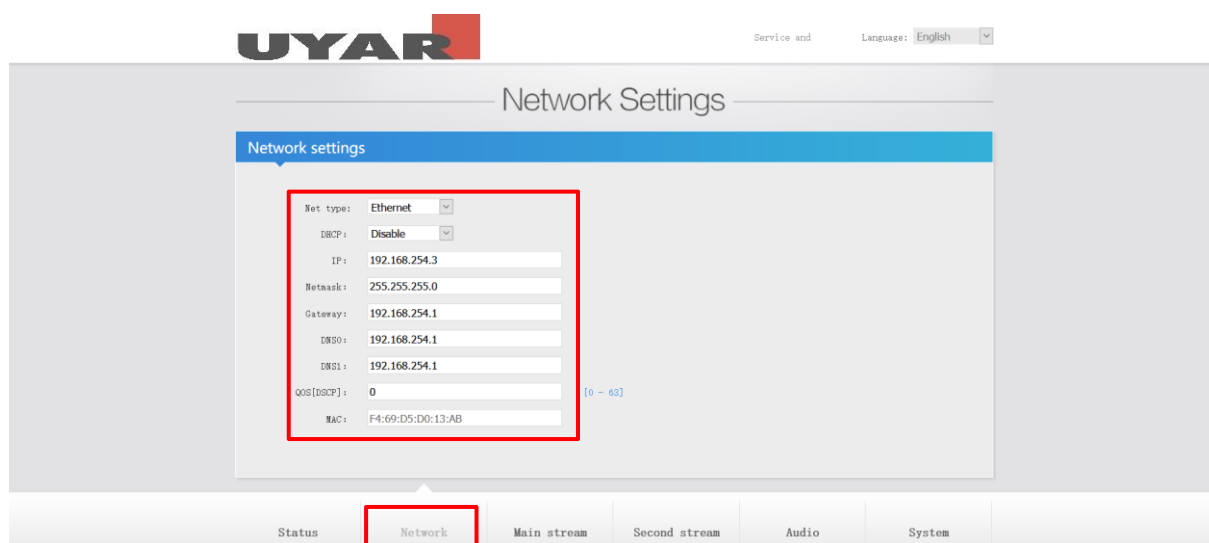
Here you can take the setting of the IP encoder (IP address / subnet mask / gateway) from the example above. Set DHCP to "Disable".

Case 1.2 connecting the IP encoder to the router:

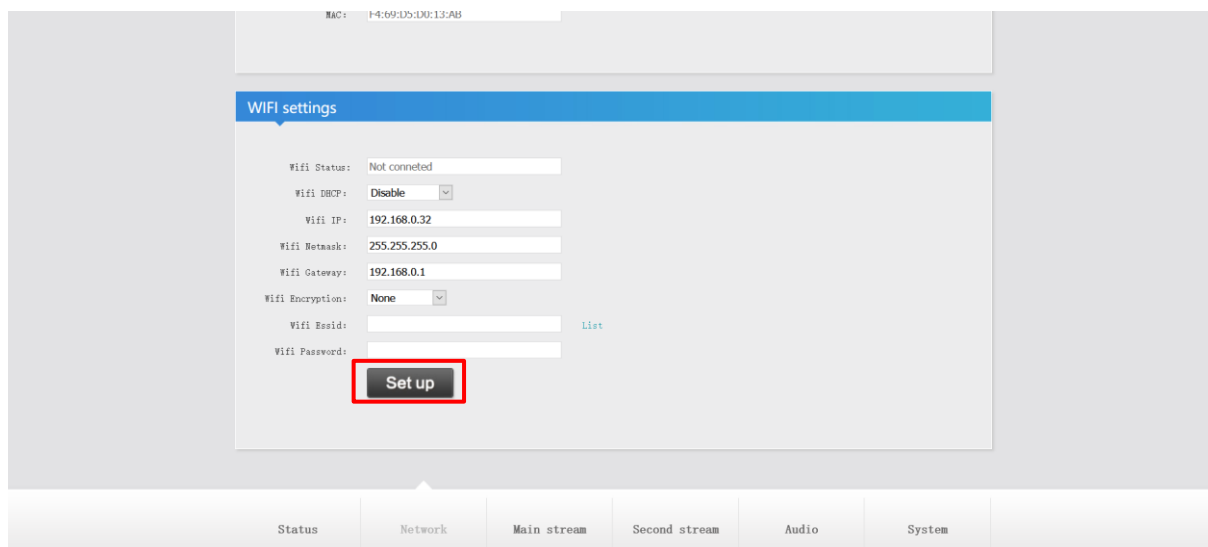
Please contact your network administrator for the following settings. It is necessary to assign fixed IP addresses, which are excluded from the DHCP distribution. It is also necessary to clarify which subnet mask and which gateway is used.

Case 1.3 mixed form:

For the setting of the IP encoder directly connected to the NVR, the IP address/subnet mask/gateway from the example above can be used and set DHCP to "Disable". For all other IP encoders that are connected via the router, please contact your network administrator. It is necessary to assign fixed IP addresses, which are excluded from the DHCP distribution. It is also necessary to clarify which subnet mask and which gateway is used.



After the entry, please scroll down and confirm the entry with "Set-up". You don't need to look at the wifi settings.



MAC: F4:69:D5:D0:13:AB

WiFi settings

Wifi Status: Not connected

Wifi DHCP: **Disable**

Wifi IP: 192.168.0.32

Wifi Netmask: 255.255.255.0

Wifi Gateway: 192.168.0.1

Wifi Encryption: **None**

Wifi Bssid: [List](#)

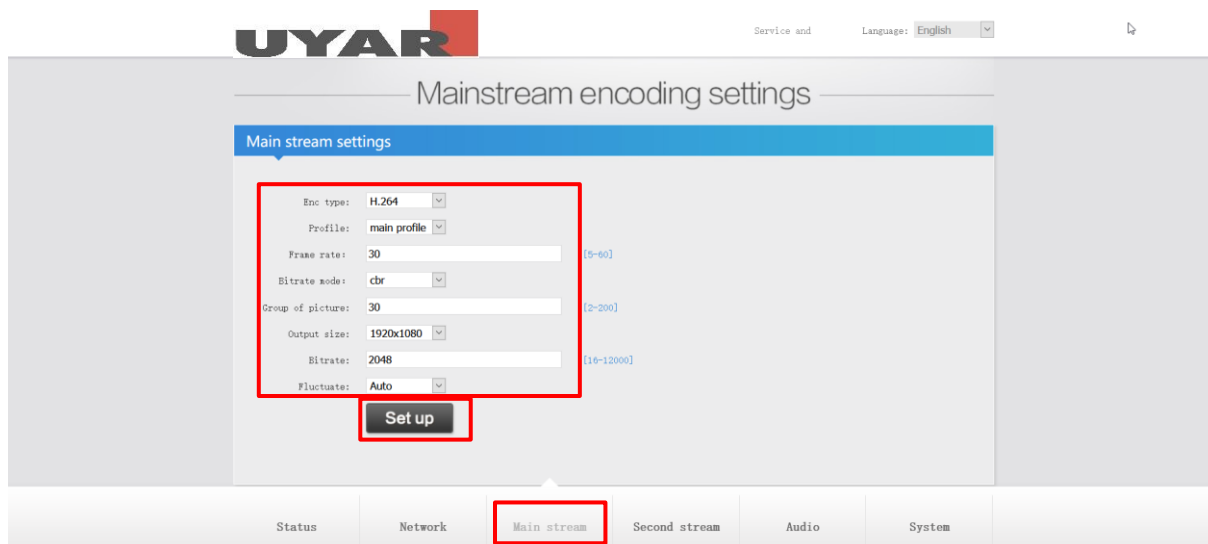
Wifi Password:

Set up

Status Network **Main stream** Second stream Audio System

Step 4: Now select the following settings in "Main Stream". The encoding type is h.264, the frame rate is 30fps. The bit rate mode is cbr (constant-bit rate). The output size is 1920x1080. We recommend 5120 for the bit rate, which corresponds to 5MB/s.

Confirm the entries with "Set up".



UYAR Service and Language: English

Mainstream encoding settings

Main stream settings

Enc type: **H.264**

Profile: **main profile**

Frame rate: 30 [5-60]

Bitrate mode: **cbr**

Group of picture: 30 [2-200]

Output size: 1920x1080 [16-12000]

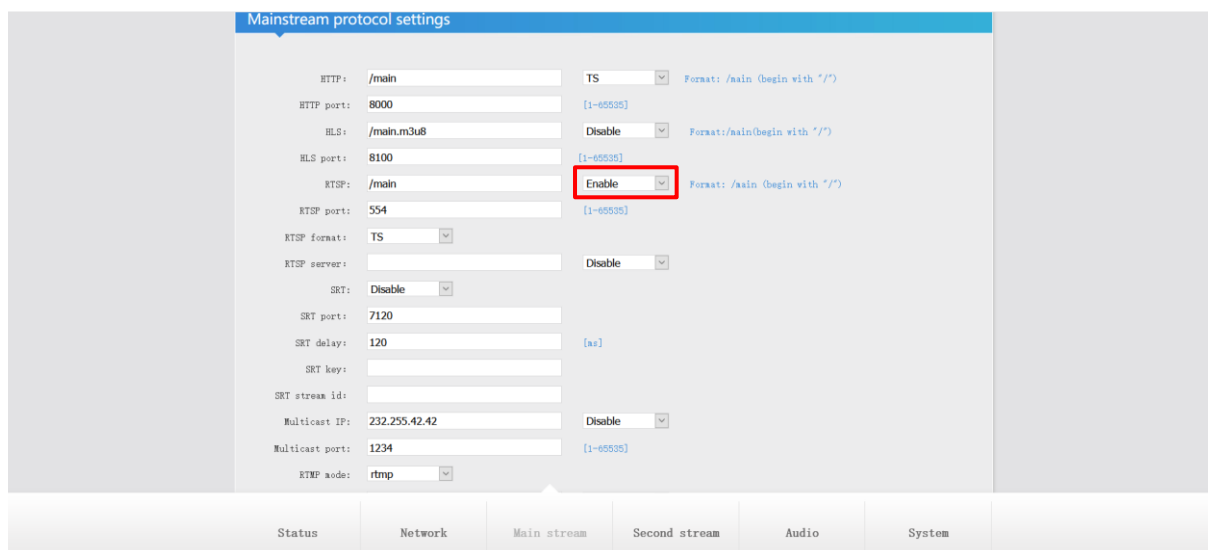
Bitrate: 2048

Fluctuate: **Auto**

Set up

Status Network **Main stream** Second stream Audio System

If you now scroll down the "Mainstream protocol settings" follow. Please set RTSP to "Enable".

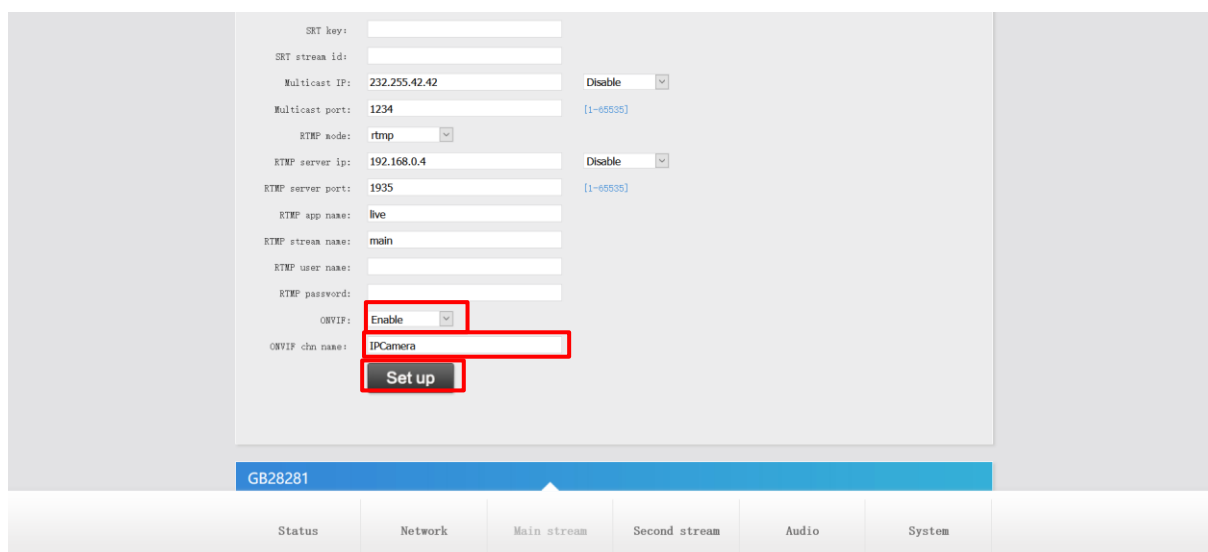


Mainstream protocol settings

HTTP:	/main	TS	Format: /main (begin with '/')
HTTP port:	8000	[1-65535]	
HLS:	/main.m3u8	Disable	Format: /main(begin with '/')
HLS port:	8100	[1-65535]	
RTSP:	/main	Enable	Format: /main (begin with '/')
RTSP port:	554	[1-65535]	
RTSP format:	TS		
RTSP server:		Disable	
SRT:	Disable		
SRT port:	7120		
SRT delay:	120	[ms]	
SRT key:			
SRT stream id:			
Multicast IP:	232.255.42.42	Disable	
Multicast port:	1234	[1-65535]	
RTMP mode:	rtmp		

Status Network **Main stream** Second stream Audio System

In addition, please set "ONVIF" to "Enable". You can also specify the channel name in the "ONVIF chn name" field. Choose any name here, such as the name of your machine in which is recorded. Then confirm the entries with "Set Up".



SRT key:

SRT stream id:

Multicast IP:

Multicast port:

RTMP mode:

RTMP server ip:

RTMP server port:

RTMP app name:

RTMP stream name:

RTMP user name:

RTMP password:

ONVIF:

ONVIF chn name:

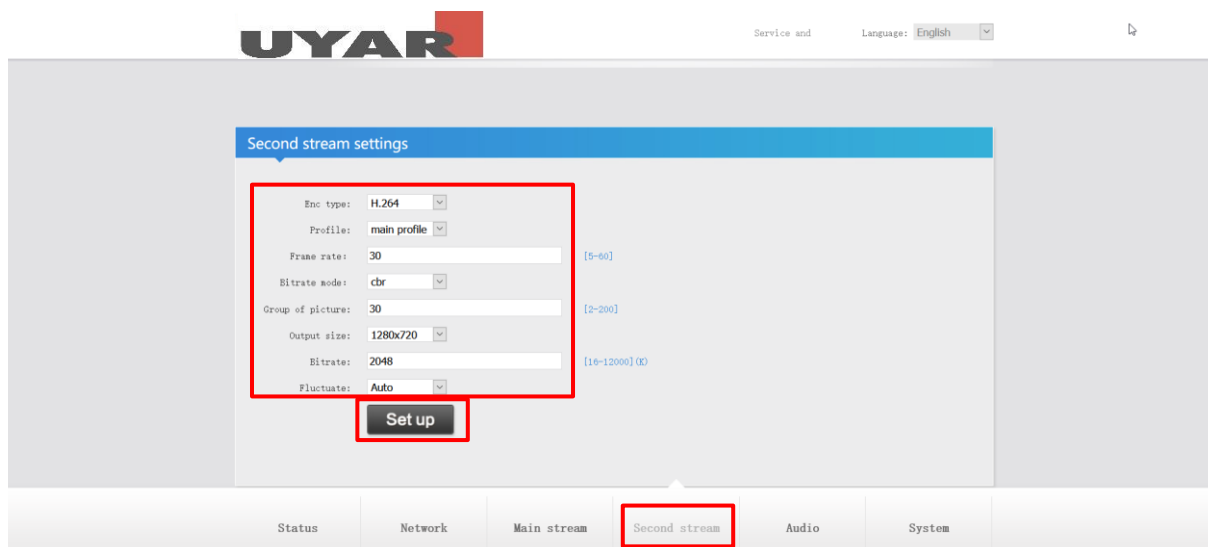
Set up

GB28281

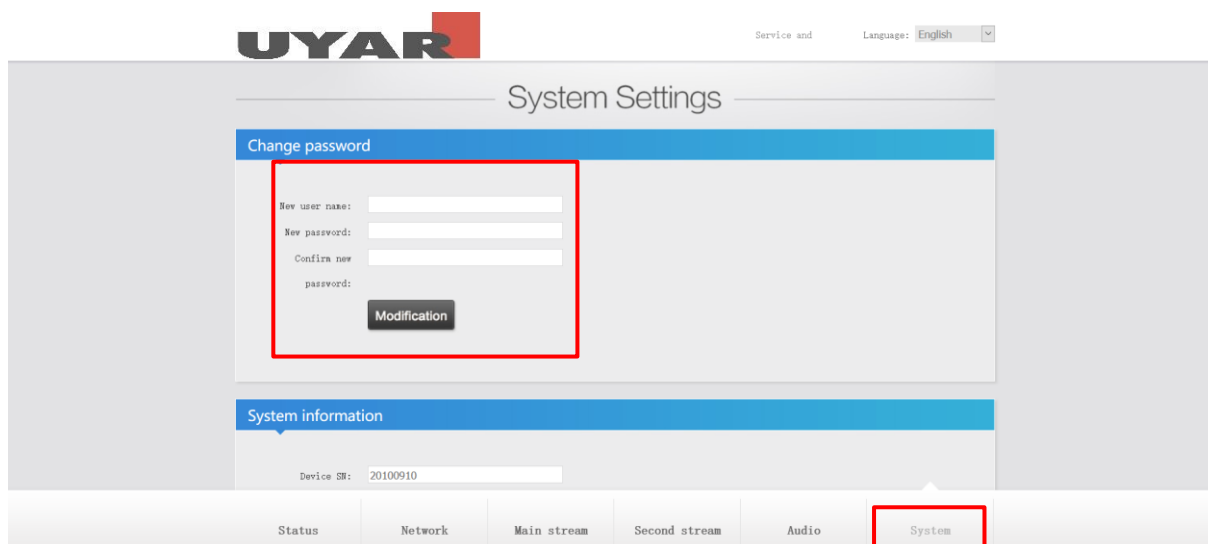
Status Network **Main stream** Second stream Audio System

Step 5: Please change the following settings in "Second-stream". The encoding type is h.264, the frame rate is 30fps. The bit rate mode is cbr (constant-bit rate). The output size is 1280x720. We recommend 2048 for the bit rate, which corresponds to 2MB/s.

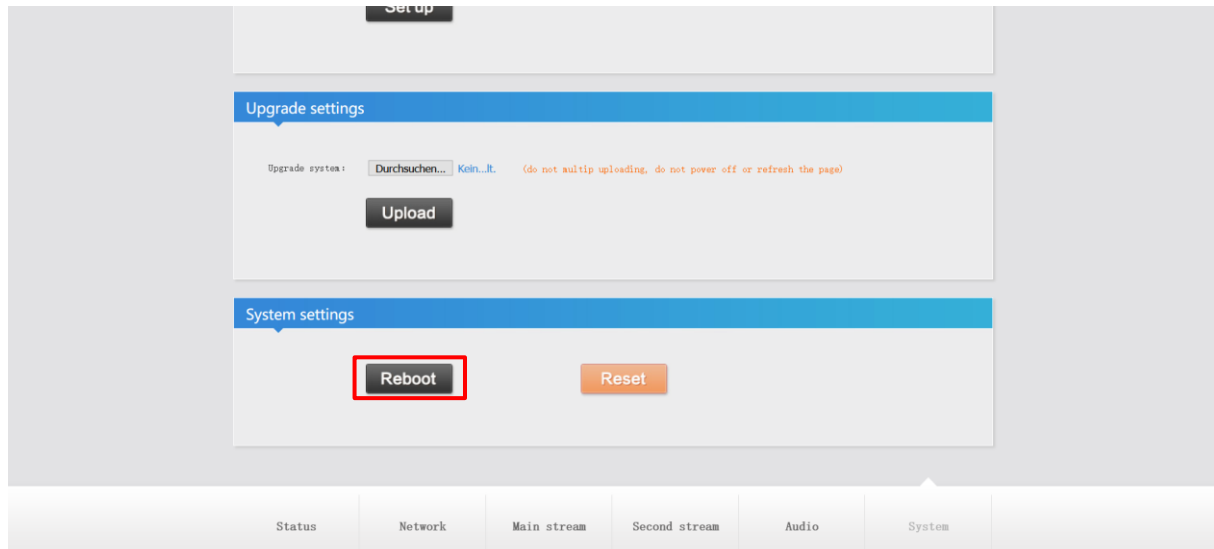
Confirm the settings with "Set up".



Step 6: The password settings can be changed in "System". Confirm the settings with "Modification".



After completing the settings, a "reboot" has to be done. The settings become active after the reboot. In general, changes become active after a reboot has been done. Please note that you can only access the device now with the new IP address and the new password.



3 Configuration Network Video Recorder

3.1 Installation

There is a USB port on the front of the housing. This can be used to connect the peripherals (mouse).



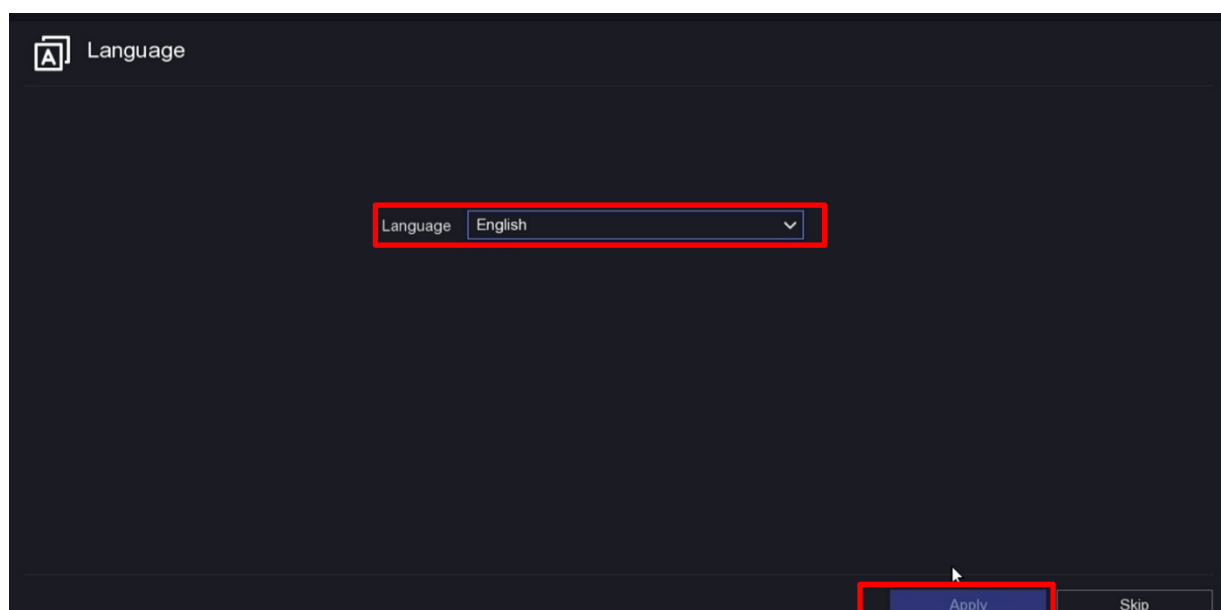
The internal Ethernet ports (1-16) can be found on the back (left). These must be connected to the video encoders if they are connected directly. The VGA or HDMI port can be connected to a standard monitor. The LAN port in the middle of the device is the external Ethernet port, which must be connected to your router or switch, depending on your network structure. The additional USB port can optionally be used to connect additional peripherals. Connect the NVR to an external power source.



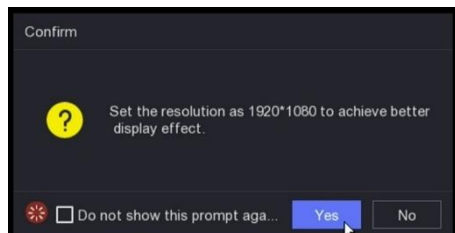
3.2 Software setup

After you have connected the NVR to the additional peripherals, you can set up the NVR software. To do this, switch on the device using the main switch (power switch) on the back and wait a moment for the device to start up.

Please select the appropriate language in the first view and confirm your entry.

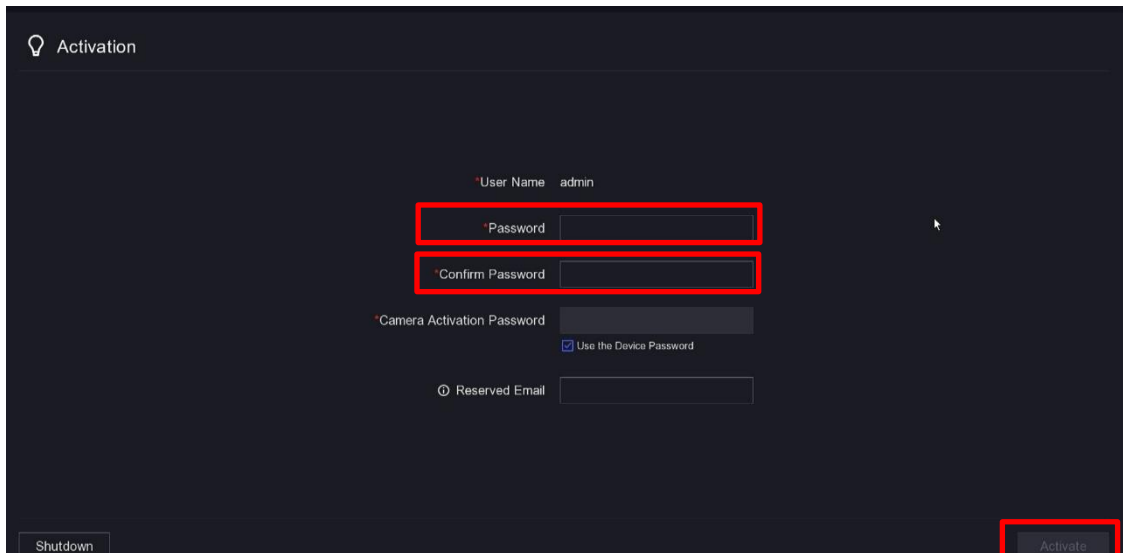


Confirm the query as to whether the display on your monitor should be set to "1920x1080".

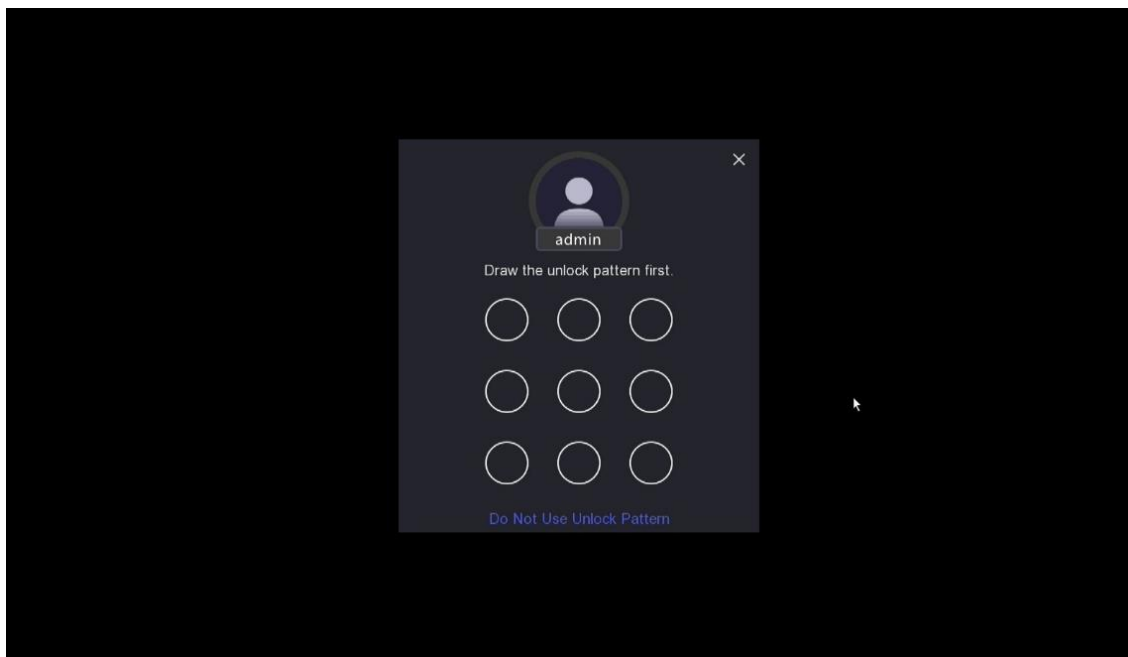


Now assign a corresponding password for the device and confirm it in the following step. You do not need a separate camera activation password, just use the device password of the corresponding device. An email address does not have to be entered here.

Then confirm your entries.

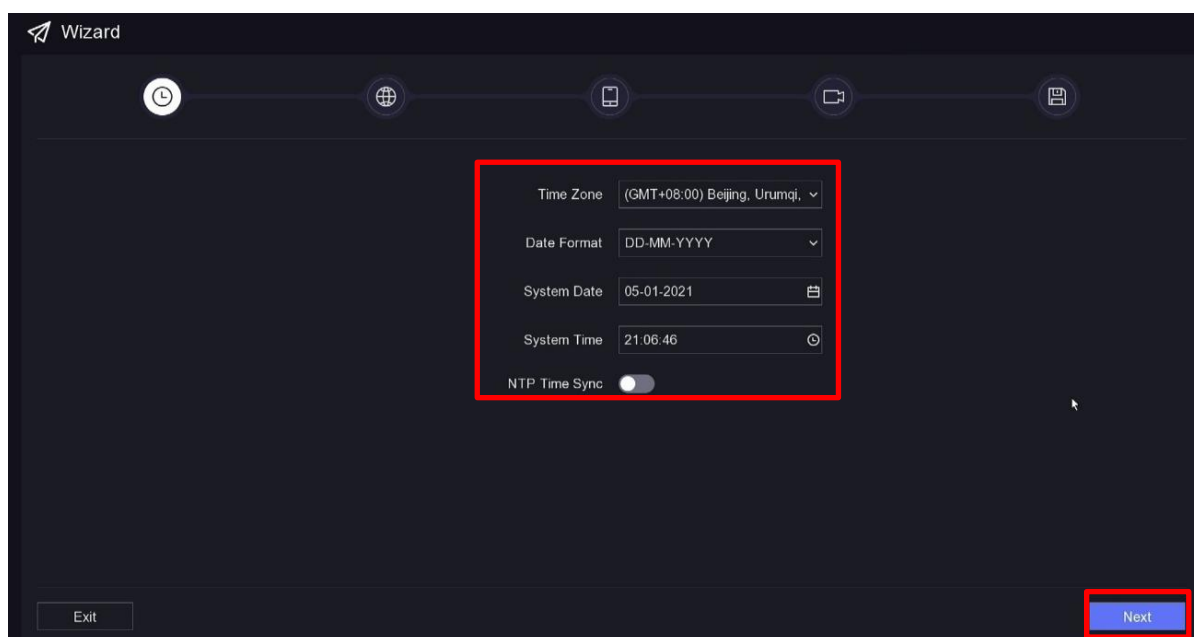
A dark-themed "Activation" screen. At the top left is a lightbulb icon and the word "Activation". Below, the "User Name" field is pre-filled with "admin". The "Password" and "Confirm Password" fields are highlighted with red rectangles. Below these is the "Camera Activation Password" field, which has a checked checkbox labeled "Use the Device Password". The "Reserved Email" field has a plus icon to its left. At the bottom left is a "Shutdown" button, and at the bottom right is an "Activate" button, which is also highlighted with a red rectangle.

Now assign any unlock pattern and confirm this in the following steps.



Now you get to the setup wizard. All settings that you make in the following steps can of course also be changed later using the settings in the main menu.

First set the date and time.



Confirm your entry with "Next". Now the network settings have to be made. Please contact your network administrator about how your new NVR should be integrated into the network. The external IP address should be permanently assigned and excluded from the DHCP distribution. Deactivate "DHCP" and select your corresponding IPv4, subnet, standard gateway and DNS server addresses.

Wizard

⌚ ⚙️ 📱 🖥️ 💾

DHCP (IPv4) ☐

IP Address 192.168.2.168

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

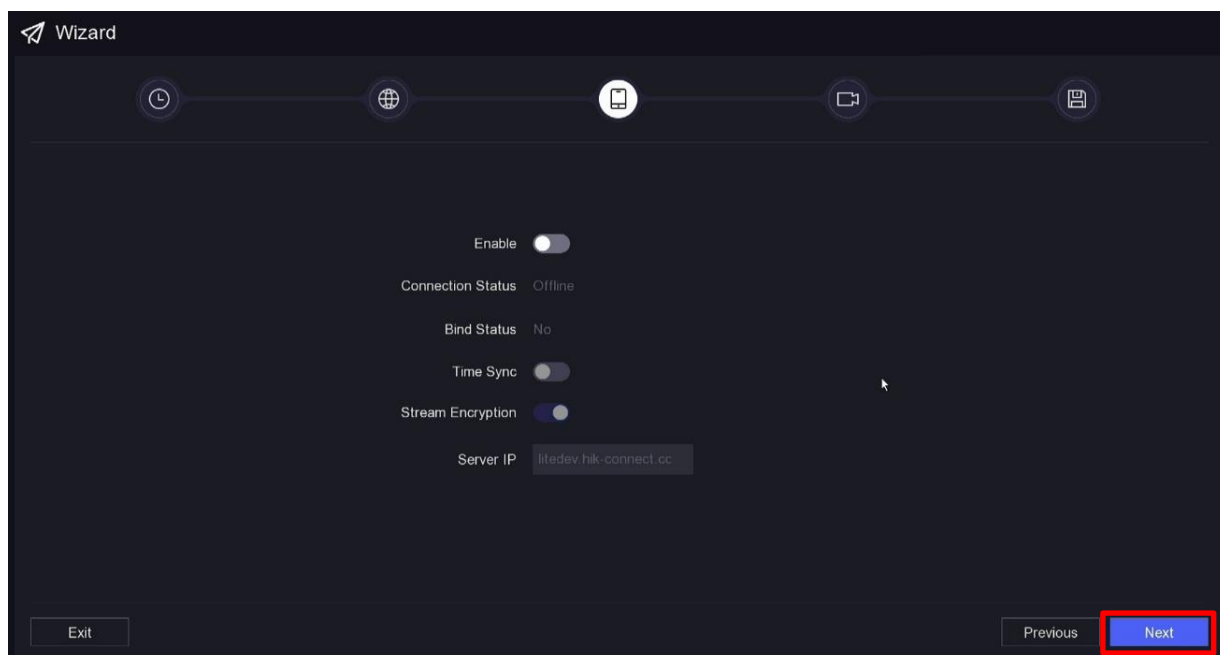
Auto Obtain DNS ☐

Preferred DNS Server 8.8.4.4

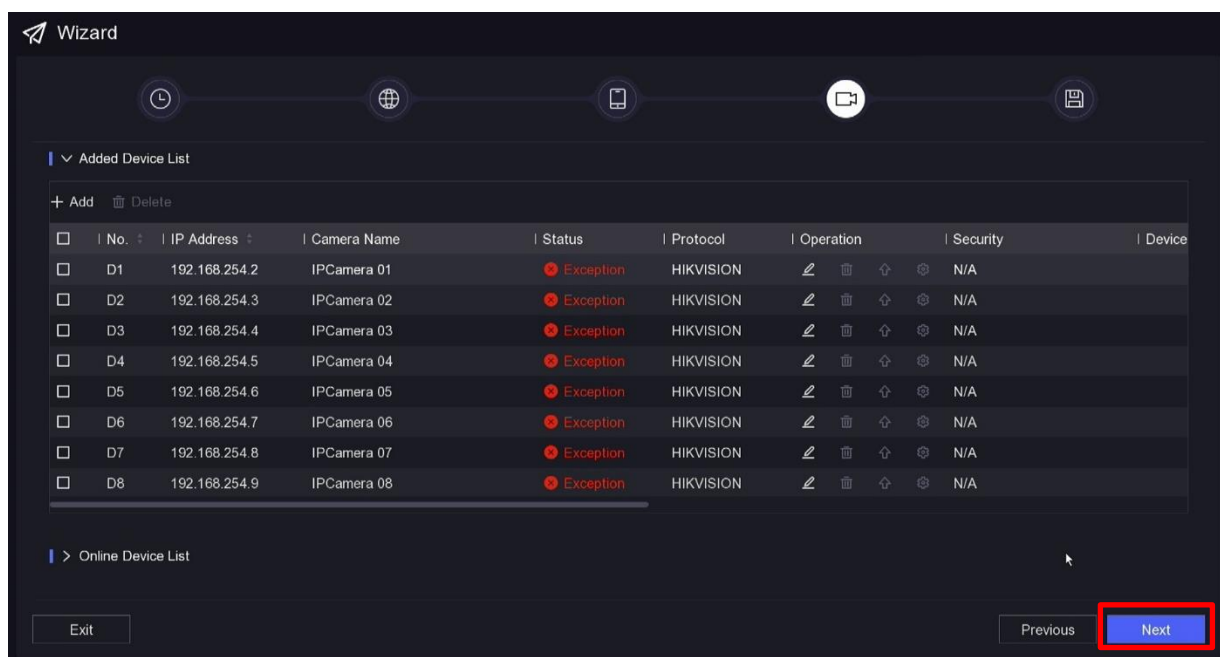
Alternate DNS Server 8.8.8.8

Exit Previous **Next**

The next step can be skipped. No settings need to be made here.

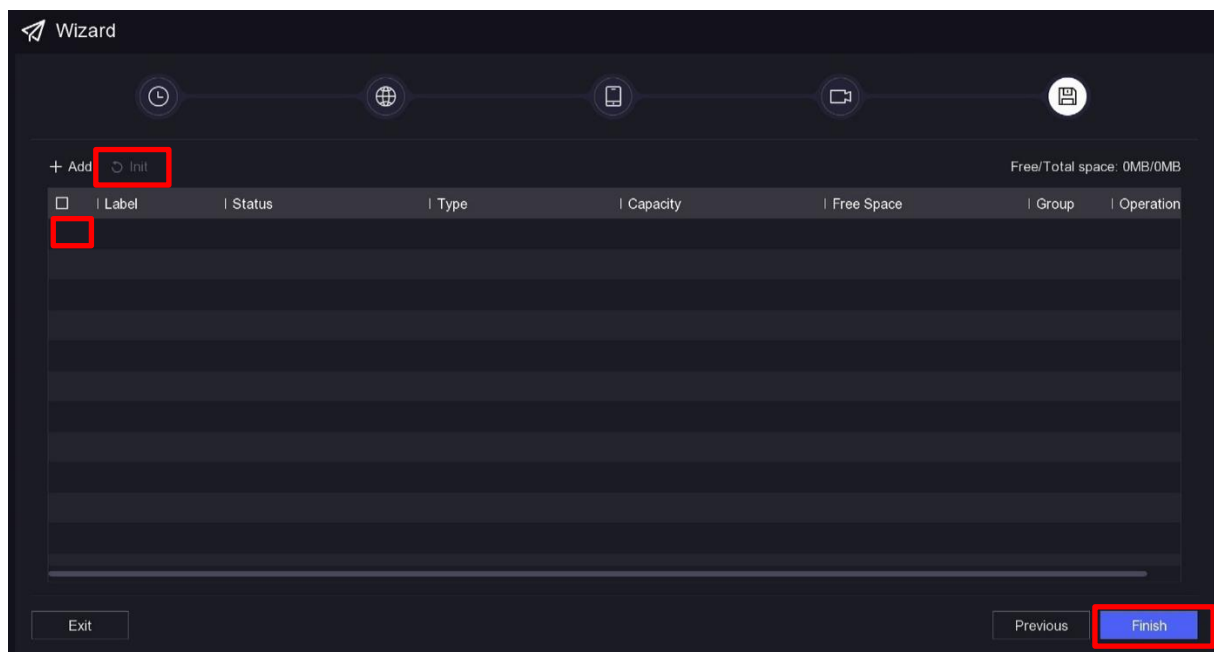


Now you get to the camera overview or the overview of the video encoder. The video encoder (cameras) can theoretically be set up at this point. However, Uyar recommends setting it up at a later time outside of the wizard. We'll come back to this point later in this guide.

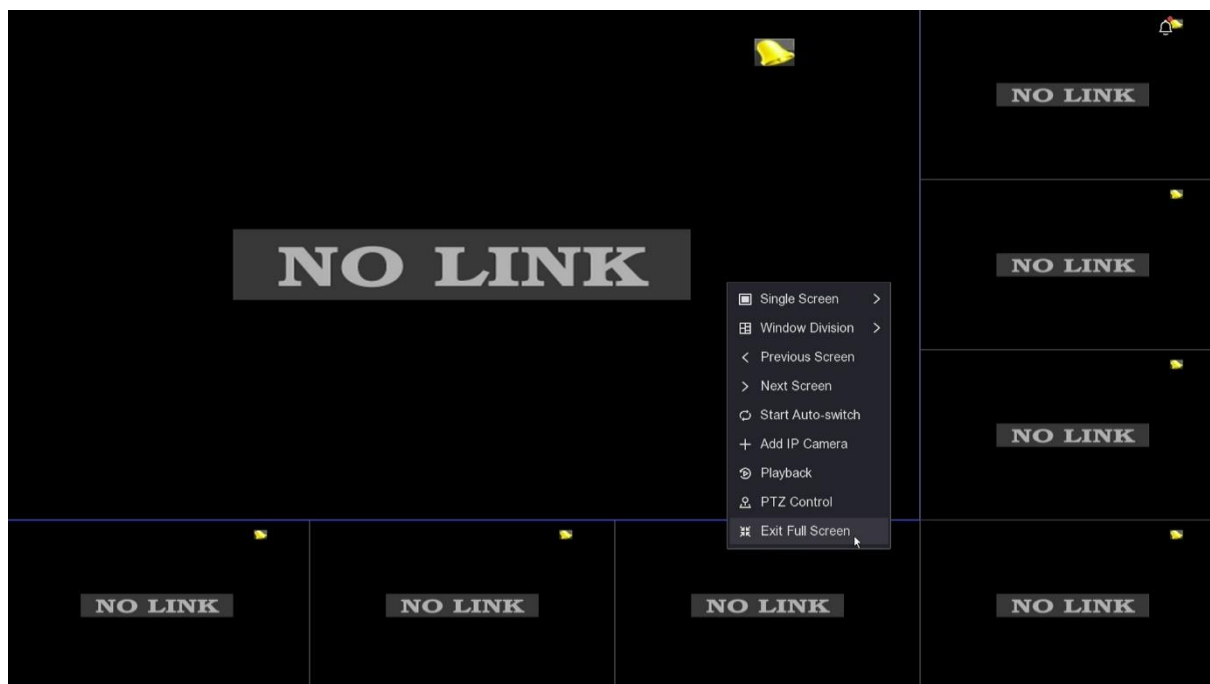


The hard drive has to be initialized. To do this, click the check box for the hard drives and initialize them with "Init". The initialization does take a few seconds. NVR devices that you obtain from Uyar are built with hard drives as standard.

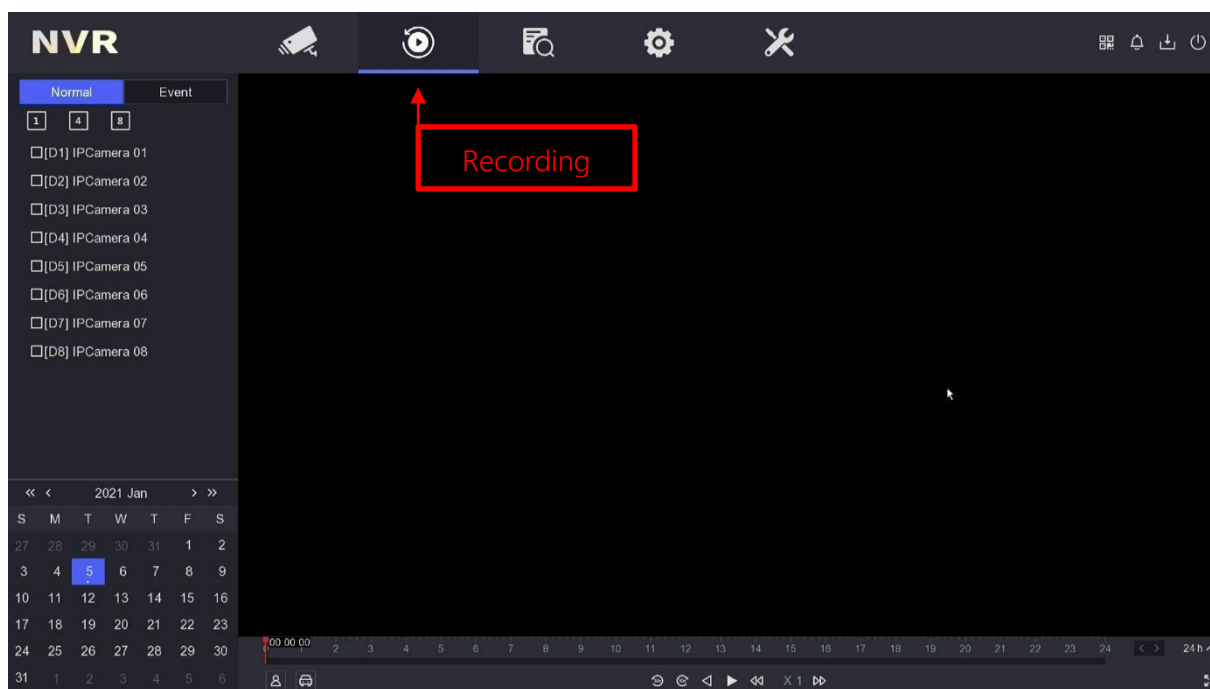
In this screenshot shown, however, no hard drive is installed.

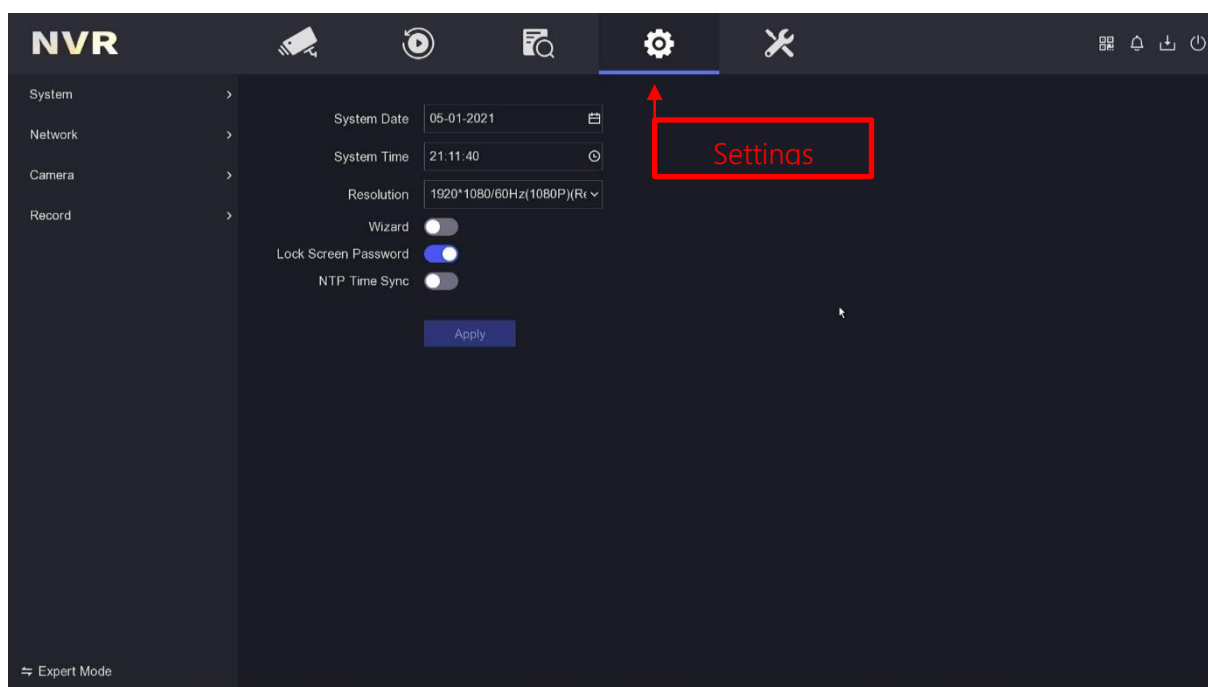
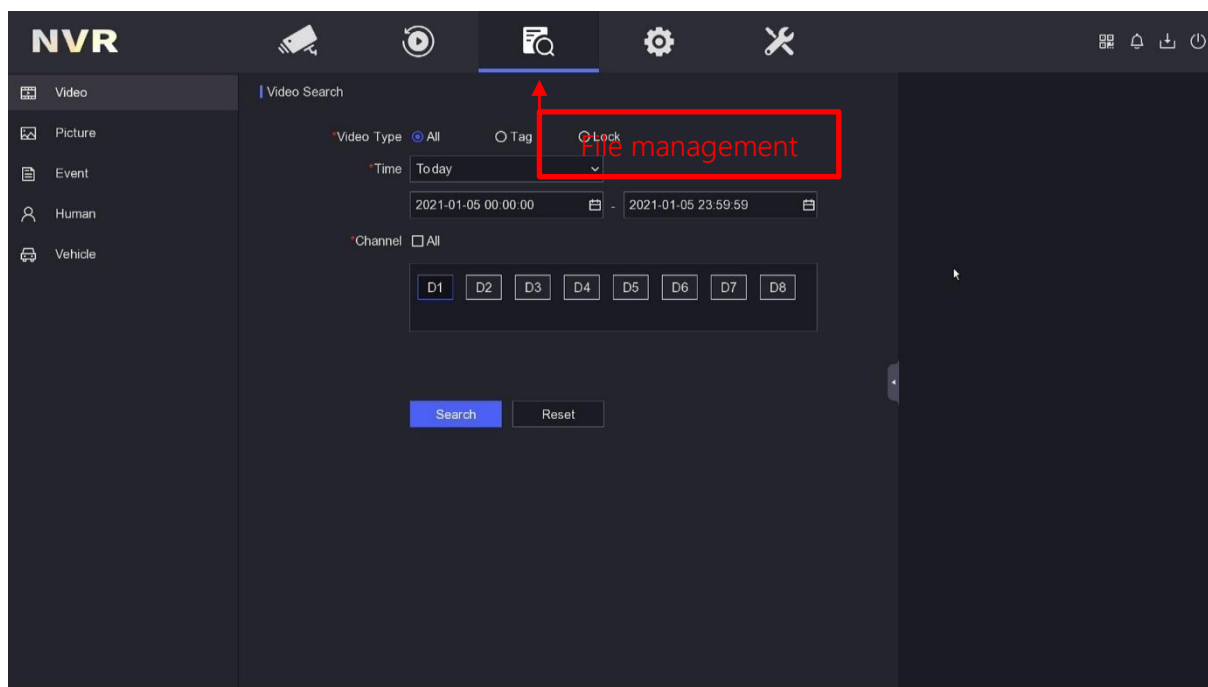


Now you get to the live view of the cameras. Right click on any field to open the navigation bar and then select "Exit Full Screen".

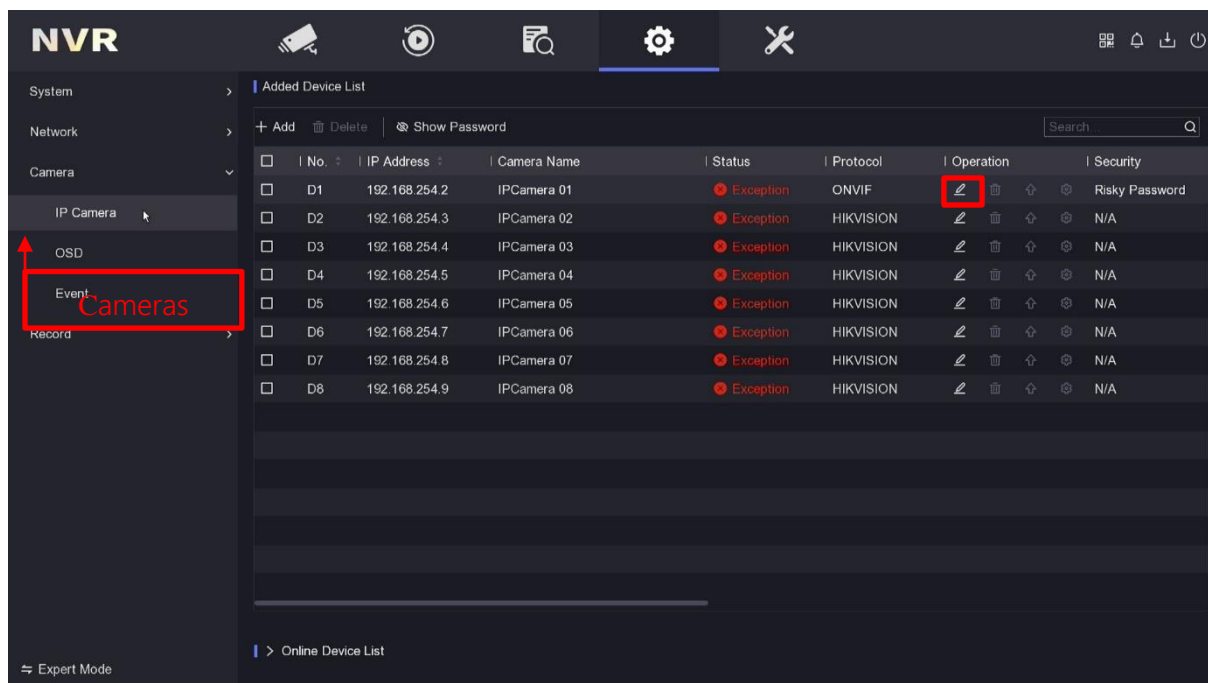


Now the navigation bar opens. Here you are in live view mode.

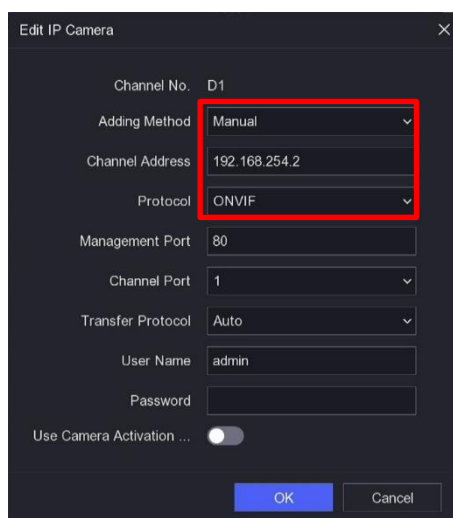




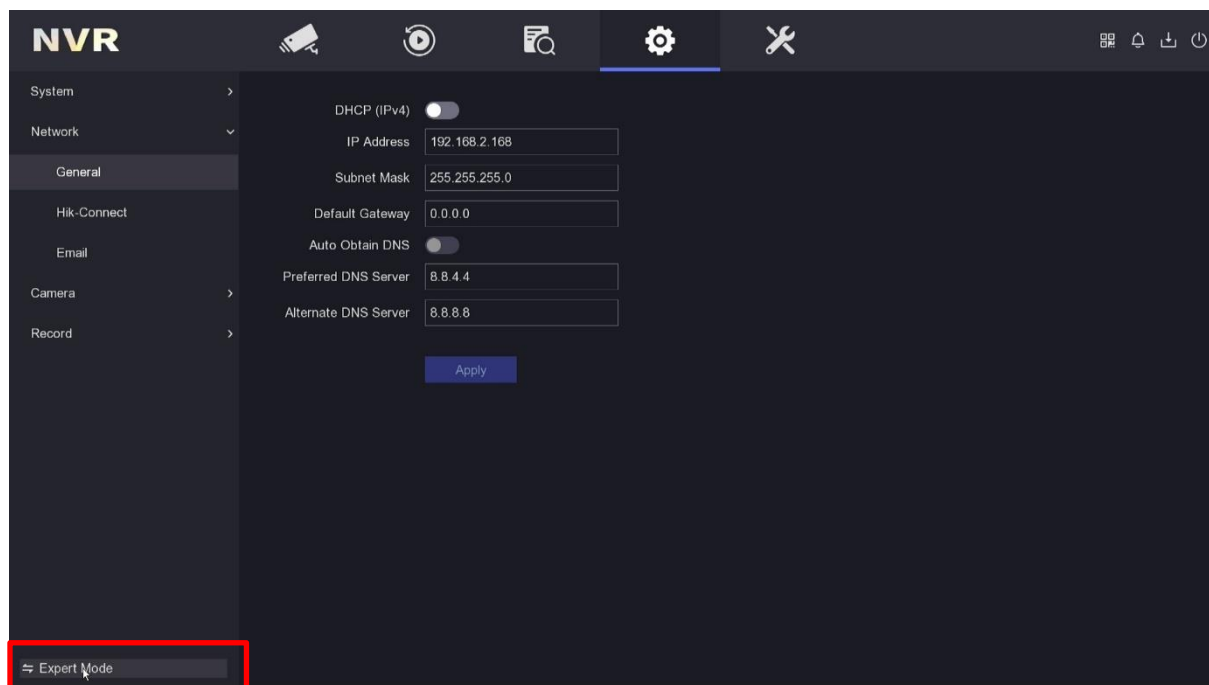
Since the video encoder and the NVR communicate with each other using the ONVIF protocol, the cameras may be recognized and shown in the live view. If this is not the case, please open the IP settings using the pencil symbol. The corresponding settings for the connection with the Uyar video encoders can now be made.



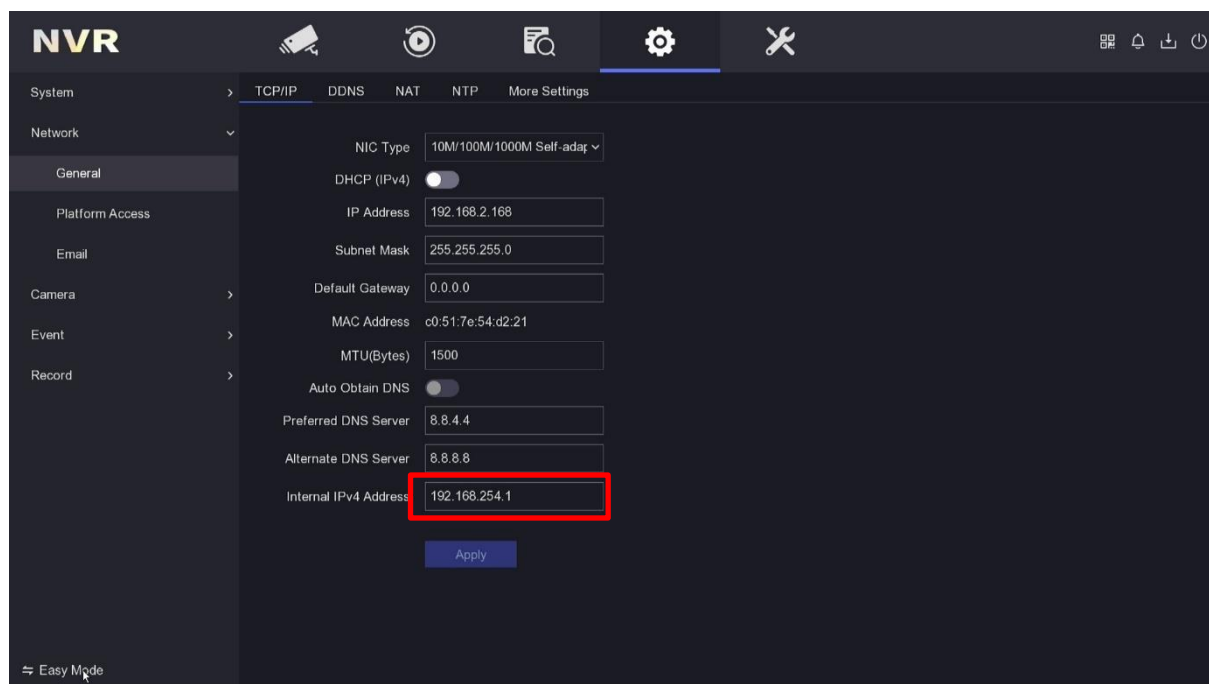
Now the menu field of the respective end device opens. Please select the "Manual" method here. For the channel addresses you have to enter the corresponding IP addresses that you have already assigned for the Uyar video encoder. Please select "ONVIF" as the protocol type. The port will set itself automatically. All other fields can remain in the preselection. Confirm with "OK".



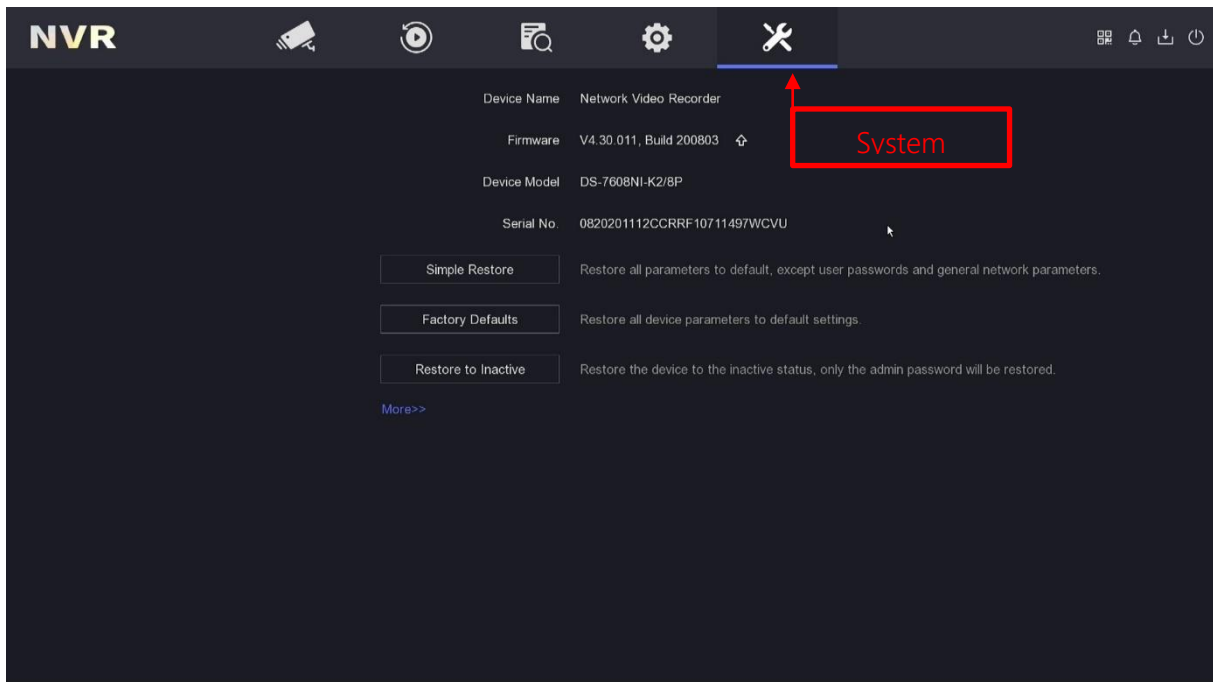
If you want to change settings, you have the option of changing the settings area from "Simple mode" to "Expert mode". In simple mode, only the essential settings are displayed. The expert mode allows further setting options.



After the change, you have the option of changing the internal IPv4 address of the internal Ethernet ports (1-16), for example.

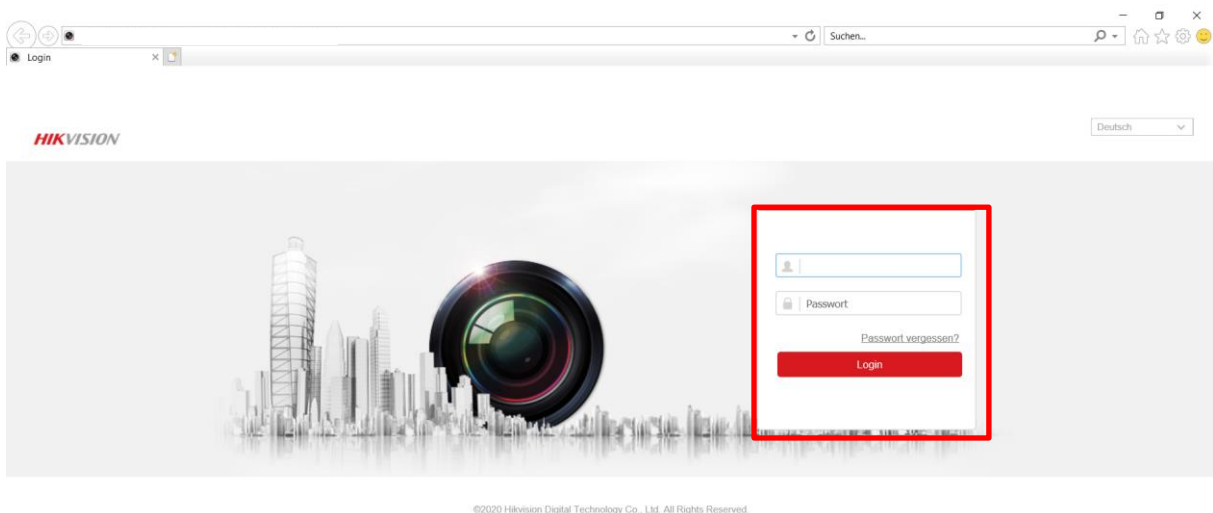


In the system area you can find the model type and the firmware version and restore the device to the factory settings.



4 Web-Panel access

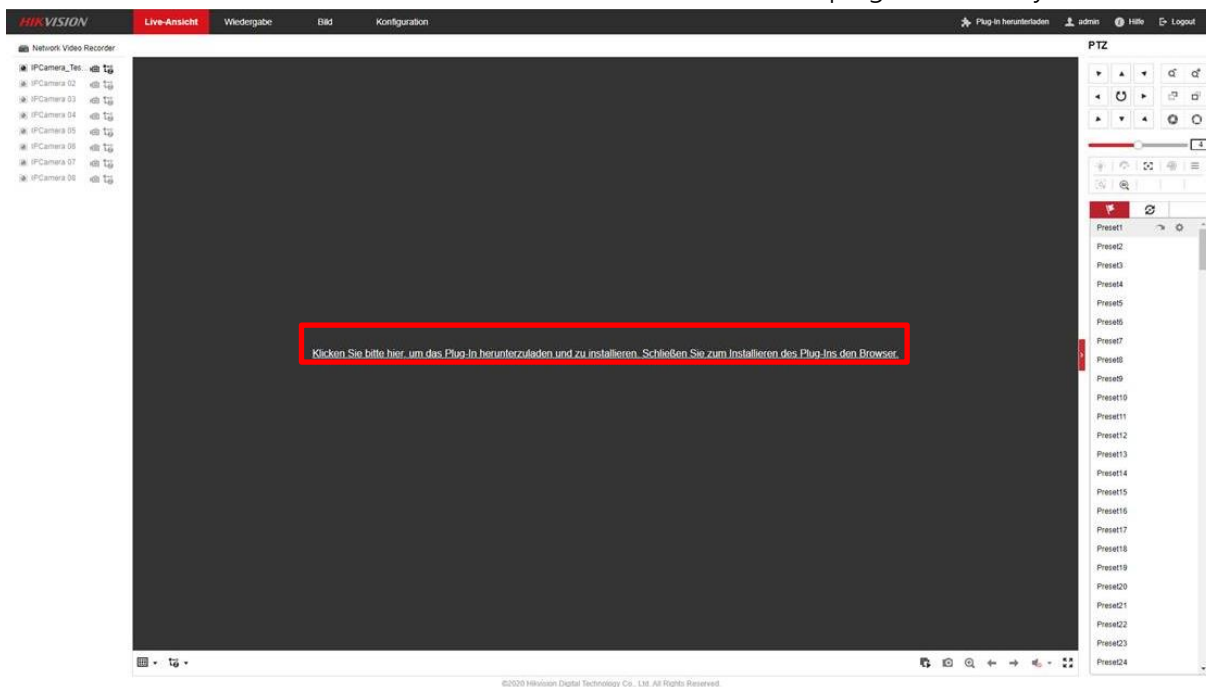
To use the web panel, please open Internet Explorer and enter the IP address of your NVR in the address line of the browser. After the web view opens enter your login details.



Quick Start Guide - Video Encoder & NVR



After opening the web panel for the first time, you will be asked to install a plug-in in order to be able to use the live view. Please install this plug-in on your device.



After installing the plug-in, start the live-view by clicking the icon .

