
3rd PARTY INTEGRATION

Sometimes it is necessary to combine video surveillance equipment from other providers with uniview tec products. Uniview tec makes this possible through providing cameras and recorders that are Onvif compliant. When Onvif protocol is not possible, we can also integrate through RTSP.

Locating Cameras and Setting IP's

All devices on a network must be able to communicate with each other, so they use distinct numbers called IP addresses. IP addresses are like phone numbers. There is a **Network** portion, like a country or area code, and a **Host** portion, like those remaining digits. Where that division is made in an IP address is controlled by the **Subnet Mask**. Devices are configured with a **Static IP** or an automatically obtained IP (**DHCP**).

A static address is fixed and must be manually configured. With a DHCP, the address is provided by the network, it is both automatically obtained and can dynamically change. This presents the problem of trying to “call” the device on a “disconnected number”. Therefore, If the cameras are not being directly connected to an NVR, we always recommend a static IP address be used.

Changing a camera IP address often requires software that most manufacturers supply. These tools can be used for locating and making basic settings changes. In some cases, the software from the provider is the only way to access their camera setup.

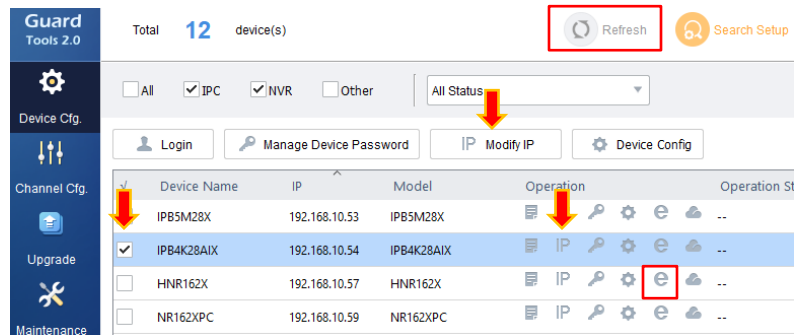
Note - To make any changes you almost always require the username and password for the device. If you don't have this you will likely need to contact the camera provider for assistance with resetting the camera.

Guard Tools is our program for uniview tec equipment. It can also be used to locate and make basic changes to **some** 3rd party devices. Guard Tools is available for download from our website at www.univiewtechnology.com/support-center/client-software-vms. Once you have installed the necessary software on a computer that is connected to the same network as the equipment that you want to configure, you are ready to change IP addresses.

Change IP with Guard Tools


For our example, we will demonstrate how this is accomplished with uniview tec cameras. On launch, Guard Tools will locate uniview tec and other Onvif cameras on the network and display them in a list. As previously stated, the address to use will depend on the network. For example, the default IP scheme for the PoE ports on a uniview tec NVR is 172.16.0.x, the Network (area/country code) portion of the address.

The uniview tec NVR will occupy the 172.16.0.1 address, so a camera is being added to this network would need to have an address in the range of 172.16.0.2 to 172.16.0.254. No devices on the network should have the same address.



Select the desired camera and then click on the **Modify IP** button. Then click on the numbers to modify the **New IP** to an appropriate IP address and set **Gateway** to the router or NVR IP address. Once complete click **OK** on the bottom. If requested, enter the username and password for the camera, the default credentials for uniview tec devices are username: admin and password: 123456.

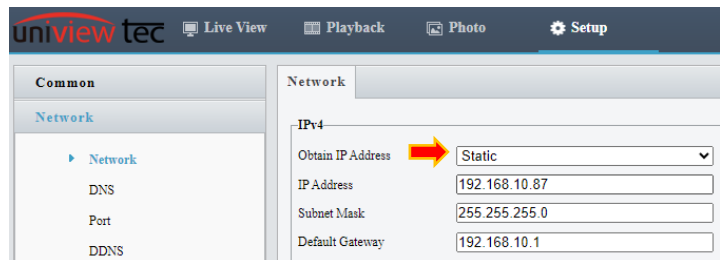
New IP	192 . 168 . 10 . 200
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 10 . 1

After changing the camera's IP address, click **Refresh** to ensure it has changed. If you click on the  next to the camera, you will be taken to its web portal.

Change IP with Web Portal

To access the camera, you can also type the IP address of the camera into the address bar of a compatible browser. Once you login from that page, if the password was default, you will be prompted to change the camera password. Make a note of that password as it will be needed to access or register the camera in the future.

Navigate to **Setup > Network > Network**. Change the **Obtain IP Address** dropdown to **Static**. Change the **IP Address** to your desired IP. Change **Default Gateway** to the recorder IP or, if on a local network, the router IP.



Only if you are using uniview tec cameras with a 3rd party recorder, there are some more changes to make here.


1. Disable **RTSP/HTTP authentication** in **Setup > Security > Network Security > Authentication**
2. Turn on **Hide Vendor Info** in **Setup > Security > Registration Info**
3. Set **Video Compression** to H.264 and turn off **Smart Encoding** in **Setup > Video & Audio > Video**
4. Upgrade the firmware by clicking **Detect** next to Cloud Upgrade in **Setup > System > Maintenance**

Note: 3rd Party Cameras may also have settings to make them more compatible with uniview tec equipment, contact support to find out more.

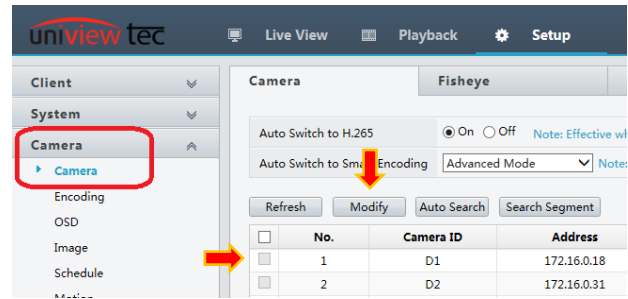
Registering 3rd Party Cameras

Registering a camera can be done directly at the uniview tec recorder or through its browser interface.

Browser Interface

Again, you can type the IP address of the recorder into a browser, or click  in guard tools next to a listed recorder, then log in.

Navigate to **Setup > Camera > Camera > Camera**.
Select a Channel and then click **Modify**.
Change **Add Mode** to IP Address.

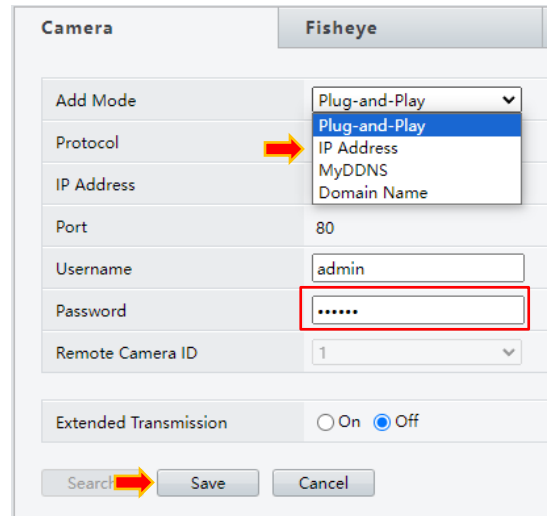


If the NVR does not have PoE ports, or has 32 or more channels, click on **Add** at the top of the camera page to get to the registration page, and IP Address will already be the **Add Mode**.

You can Enter the **IP Address** you set for the camera or click on **Search**.

You should see your recorder listed in the **Search IP Camera** list, select it and click on **OK**. It will populate the **IP Address** and possibly even change the **Protocol** to ONVIF.

If you did not use **Search**, you can manually change **Protocol** to ONVIF.



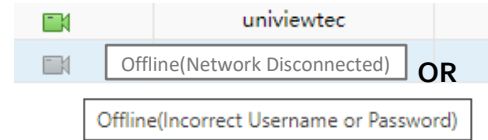
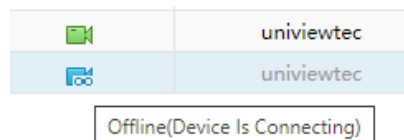
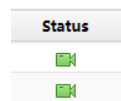
You will now need to update the **Username** and **Password** to that of the camera.

Click **Save**, and within about 1 minute your camera should connect.

The **Status** column will indicate the issue that connection is having, to help you troubleshoot. You may have to navigate away from and back to the Camera page to get the **Status** indicators to refresh.

Status	IP Address	Configure	Port	Qty	Protocol	Vendor	Model	Serial No.
	172.16.0.22		80	1	Private	univiewtec	IPT4212MX	210235TKXKA216000173
	172.16.0.52		80	1	Private	univiewtec	IPB4K28AIX	210235TUHF3223000674
	172.16.0.58		80	24	ONVIF	univiewtec	HNR162X	210235XGC03239000020
	172.16.0.76		80	24	ONVIF	univiewtec	HNRXA116	210235XB533211000035
	172.16.0.86		80	16	ONVIF	UniviewTec	HNR08	210235TA0MF18C000080
Added	172.16.0.13		80	1	Private	univiewtec	IPB4K212MX	210235TM3R3217000137
Added	172.16.0.14		80	1	Private	univiewtec	IPT528AIX	210235TQ71321A000209
Added	172.16.0.15		80	1	Private	univiewtec	IPT528AIX	210235TQ71321A000410
Added	172.16.0.16		80	1	Private	univiewtec	IPFE5360X	210235TTBL321B000277
Added	192.168.2.17		80	5	Private	univiewtec	IPFE12360X	210235U3A83234000008
Added	192.168.10.73		80	1	Private	univiewtec	IPCS425X	210235XGV63235000026
Added	192.168.10.114		80	1	ONVIF	univiewtec	IPLR82447MX	210235U3BY3234000015

Found:14 Selected:0



Using ODM to find RTSP resource paths

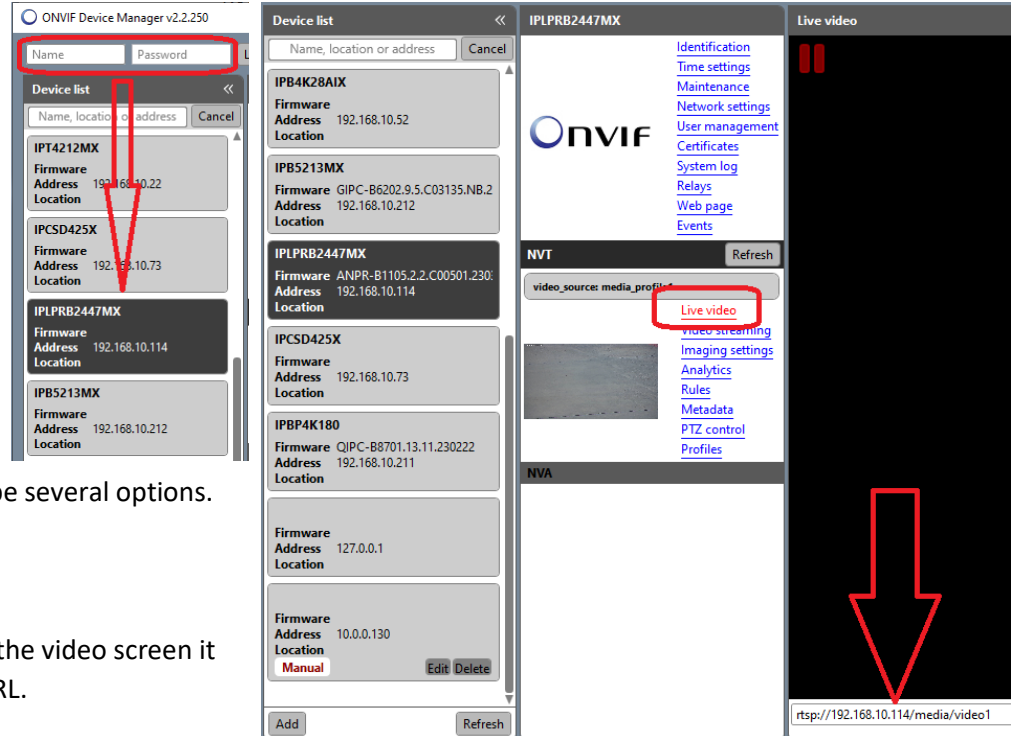
For locating an RTSP stream we recommend using Onvif Device Manager (ODM). Searching online it can be located at <https://sourceforge.net/projects/onvifdm>

Download and install it on a computer that can be connected to the same network as the camera.



Once ODM is opened it will start locating Onvif devices and display them in a list on the left.

Type in the username and password at the top left of the screen and select your device.



To the right there will be several options.

Click on **Live Video**.

At the bottom-right of the video screen it will display the RTSP URL.

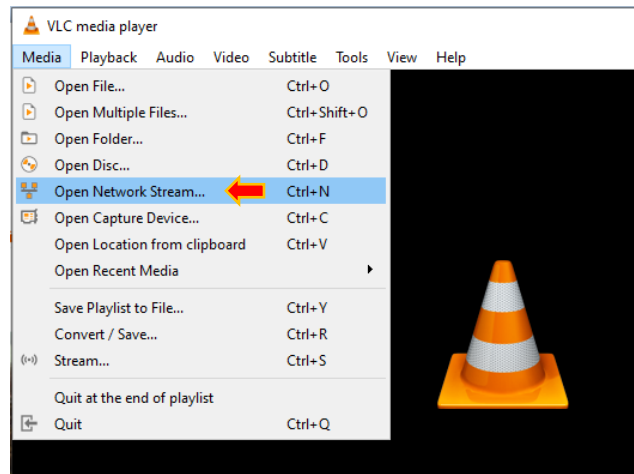
It is recommended to test the RTSP since ODM is not always able to detect it correctly.

RTSP Testing with VLC

To test the RTSP stream we recommend using VLC Media Player. It can be located online at <https://www.videolan.org/vlc>. Download and install it on a computer that can be connected to the same network as the camera.

Open VLC.

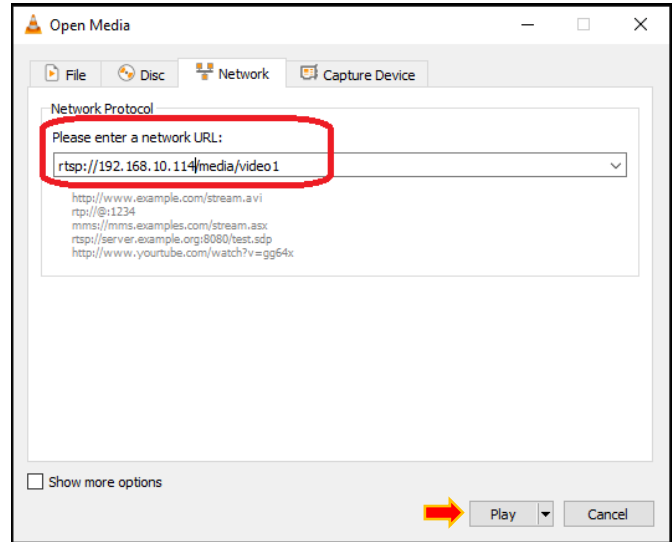
Click on **Media** and then select **Open Network Stream....**



Type the RTSP URL into the **Please enter a network URL:** field and click **Play**. It will then have you enter the login credentials for the camera to access that stream.

If the stream information is correct video will be displayed. If no video is displayed the resource path may be incorrect. Check with the camera manufacturer for the correct path.

It is possible the stream may not request the username and password for the camera, or the RTSP port may be different, if so you can type the URL like this:



rtsp://<username>:<password>@<IP>:<port>/<resource path>

OR

rtsp://admin:123456@192.168.1.20:554/media/video1

This will provide the username and password with the stream request and make that request to the port entered. This may provide video in some cases where it otherwise would not.

