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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 ADDRESSES

To begin, the devices must be able to communicate with each other. All network devices are configured for either a static IP address or to automatically obtain (DHCP) an IP address. A static address is fixed and must be manually configured. The IP address needs to match the network where the device is going to be connected. With a DHCP address the device will automatically obtain an address from the network where it's connected. This IP address is controlled by the network and can dynamically change. Which type of addressing is best is determined by the network where it's going to be connected but is beyond the scope of this tech note. We recommend in most cases when setting up the video surveillance equipment, a static IP address be used.

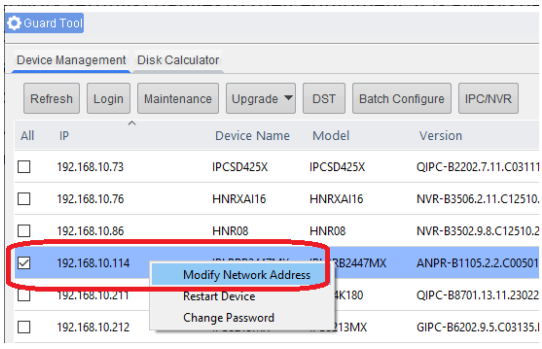
To change a cameras IP address often requires software. Most camera manufactures provide software specifically for their equipment which is used for locating and making basic settings changes. In some cases the software from the provider is the only way to access their camera setup.

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 Tool is our program for uniview tec equipment. It might also be used to locate and make basic changes to 3rd party devices. Guard Tool is available for downloaded 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.

For our example, we will demonstrate how this is accomplished with uniview tec cameras.

Guard Tool will locate the uniview tec cameras. Select the desired camera and right click on it. Then click on Modify Network Address. The default login is admin and 123456.



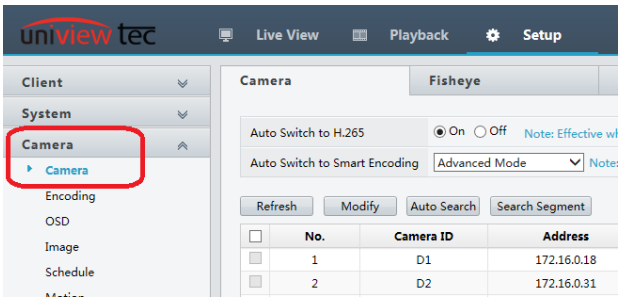
As previously stated the address to use will depend on the network where the device is connected. For example the default IP addresses scheme for the PoE ports (NIC2) on a uniview tec NVR is 172.16.0.x.

As such, if the uniview tec NVR's NIC2 is 172.16.0.1 and a camera is being added to this network it would need to have an address in the range of 172.16.0.2 to 172.16.0.254. As well, the address needs to be available and not used by any other device. After changing the cameras IP address, rescan with the software to ensure it has changed.

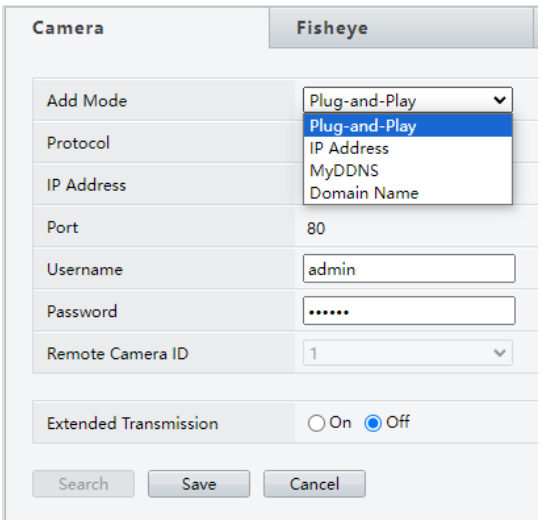
REGISTERING 3RD PARTY CAMERAS TO UNIVIEW TEC RECORDER

Registering a camera can be done directly at the uniview tec recorder or through its browser interface. For this example we will demonstrate adding through browser.

Browse to the recorder's Setup and then navigate to Camera. This is where the cameras will be added.



If the uniview tec recorder has PoE ports then the default configuration for these ports is Plug and Play. When connected to these ports uniview tec cameras will automatically register to the recorder. Some 3rd party cameras support uniview tec's Plug and Play and will automatically register if directly connected to these PoE ports.



If the camera needs to be manually registered, click on the channel that corresponds to where it is connected and then click Modify at the top of the camera list to get to registration page.

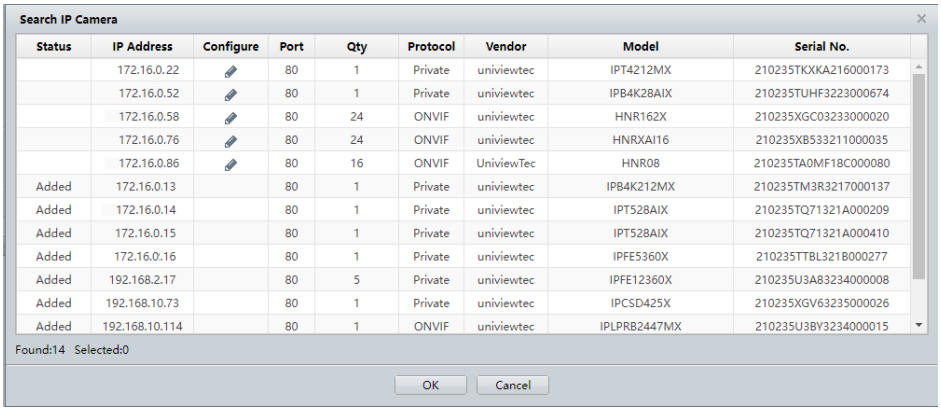
If the NVR does not have PoE ports click on Add at the top of the camera page to get to the registration page.

On the registration page click on Add Mode and select IP Address from the list. Next click on Search.

The NVR will locate all available cameras.

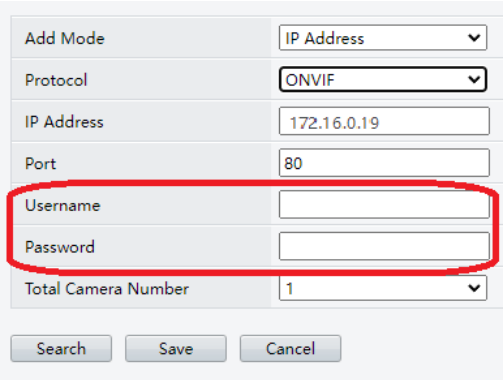
Select the camera that you want to add and then click OK.

You will then be taken back to the Modify screen.



On the Modify screen, enter the Username and Password for the camera. The IP Address and Port should have populated from the Search.

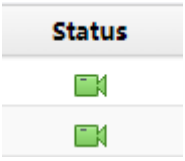
Note - If the camera was not discovered in Search there might be an issue with its settings or it might need to be manually entered on the Modify screen. The IP address, communication port and login settings would then need to be typed in.



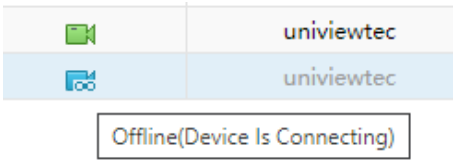
Click on Save and you will return to the Camera page.

Once back on the Camera page monitor the camera icon in the Status column.

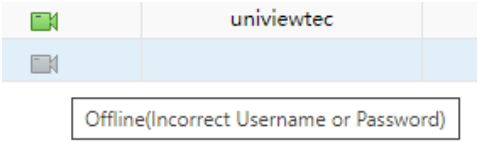
If the icon is green go to the Live View page to check your video.
If it is not green, hover over the icon for more information.



If the icon is blue, the NVR is still trying to negotiate the connection. Give it a minute and then click on Refresh in the upper left corner.



If the icon is greyed out the NVR was unable to negotiate the connection.



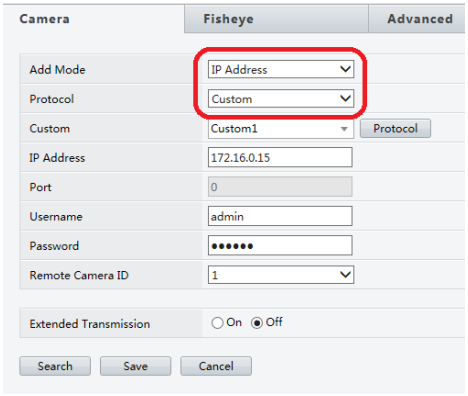
If the icon does not go green hover the mouse pointer over the status icon and it will provide more information to assist with troubleshooting.

WHY A CAMERA MIGHT NOT CONNECT

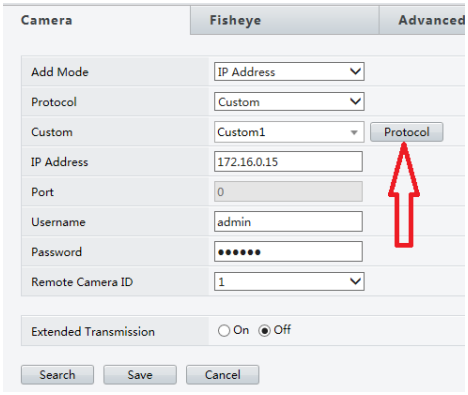
- Login, network or port settings are incorrect.
- Camera or NVR might require a firmware update.
- The camera is not Onvif compliant (preferably profile S and above) or Onvif is not enabled. Refer to Onvif.org to verify compliance. For cameras that don't support Onvif refer to adding cameras using an RTSP Stream.

ADDING CAMERAS USING RTSP STREAM

In some instances you may have to add a 3rd party camera using an RTSP stream. To add a camera using an RTSP stream, from the NVR Camera menu click on Add. If editing an existing channel, click on it and then click Modify.

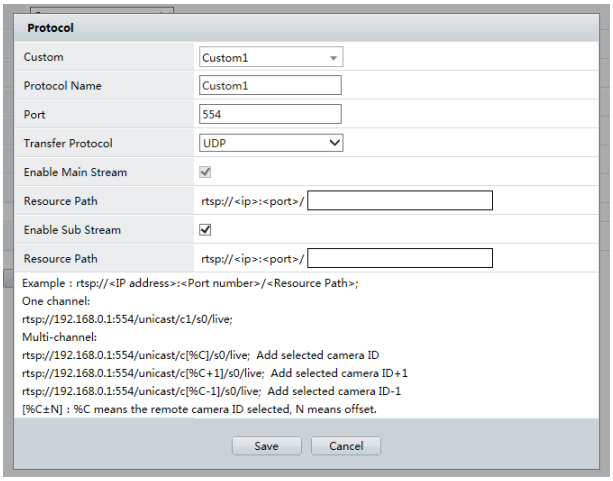


Once on this camera page you will want to change the Add Mode to IP Address and the Protocol to Custom. Enter the IP Address and the login credentials for the camera. Next you will need to define the RTSP protocol settings. To do this you will need to click the Protocol button.



On the Protocol page you will need to fill in the information for the RTSP stream of the camera you are adding. The best source for this will be from the camera manufacturer. If that is not possible, it can often be sourced with the program Onvif Device Manager.

After entering the information click the Save button on the Protocol page.



Note: If you are adding multiple cameras that are the same model, you can make your Resource Path generic by inserting <IP Address> and <Port number> where indicated in the RTSP stream. This will allow you to use the same Custom definition for those cameras since they would not need to be defined individually. At the bottom of the Protocol page are examples of how this can be done.

Once you return to the camera Modify page click the Save button. This should add the camera as a RTSP stream. Monitor the camera status icon. If the camera does not connect you may want to test the RTSP stream. We suggest testing with the program VLC Media Player to confirm that the RTSP is valid.

Note: RTSP does not support advanced functions like motion detection and PTZ control.

LOCATING THE RTSP STREAM SETTINGS

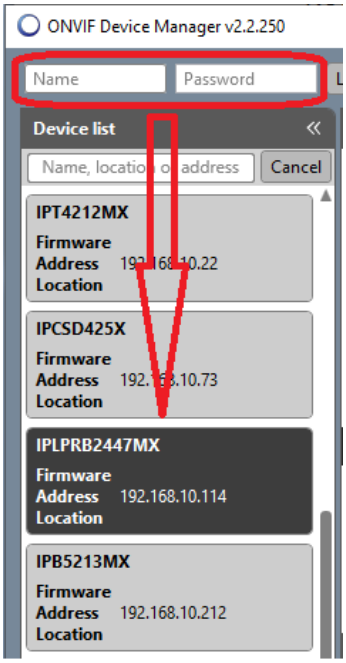
For locating an RTSP stream we recommend using Onvif Device Manager (ODM). Searching online it can be located at https://sourceforge.net/projects/onvifdm

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.

Type in the user name and password at the top left of the screen.

Next select your device.



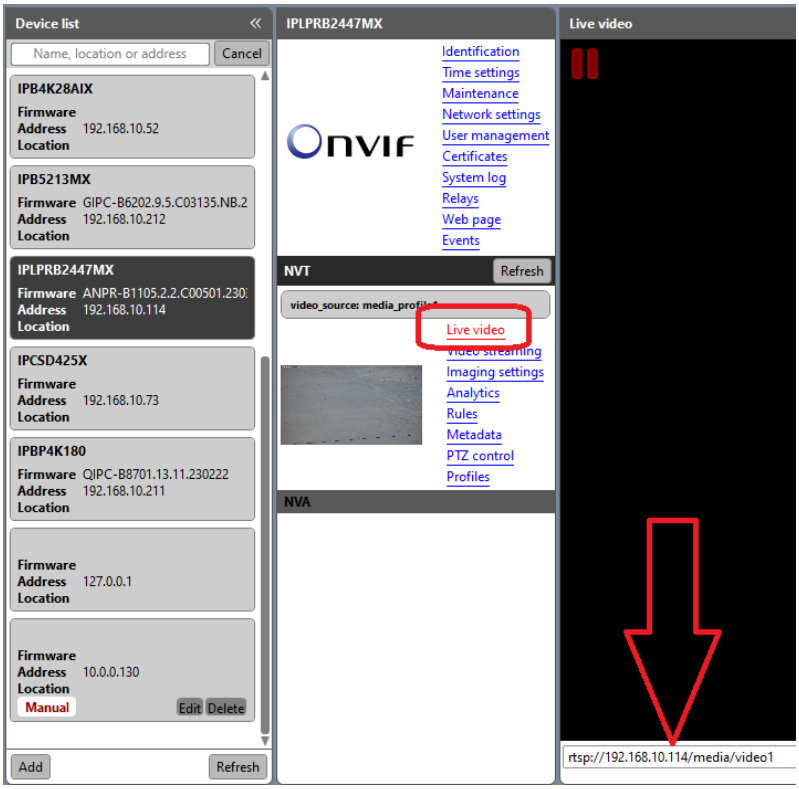
To the right there will be several options.

Click on Live Video.

At the bottom of the video screen it will display the RTSP stream.

This is what will be needed in the recorder.

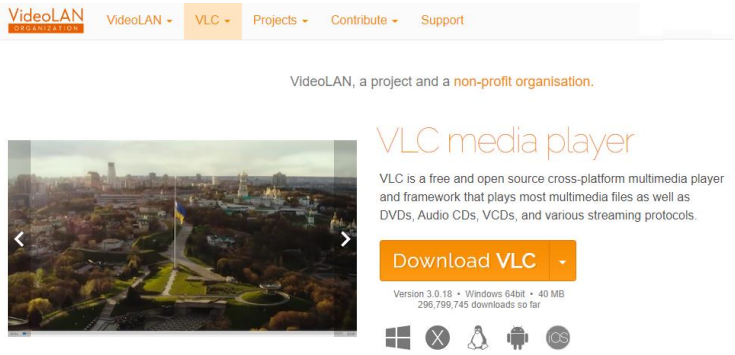
It is recommended to test the RTSP since ODM is not always able to detect it correctly.



RTSP TESTING

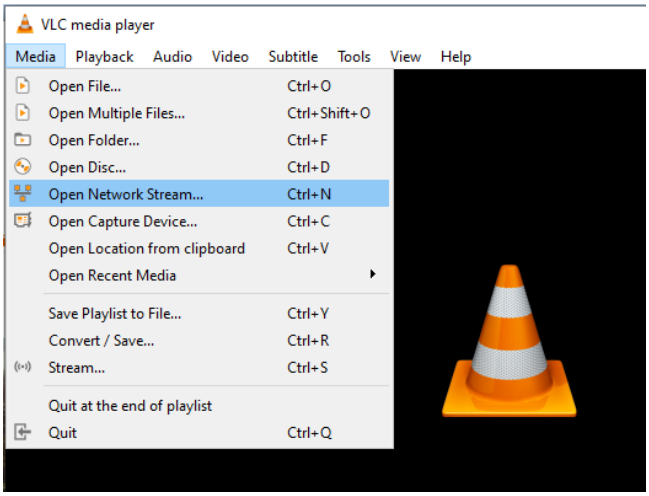
To test the RTSP stream we recommend using VLC Media Player.
Searching online it can be located at https://www.videolan.org/vlc

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



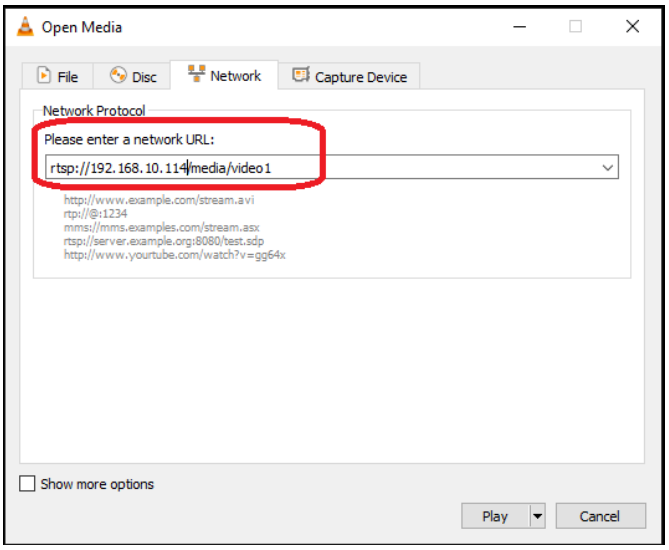
Open VLC.

Click on Media and then select Open Network Stream.



Type in RTSP stream into URL field and click Play.

If the stream information is correct video will be displayed. If no video is displayed the RTSP stream is incorrect. The camera manufacture is often the best source for assisting with this task.



ADDING UNIVIEW TEC CAMERAS TO 3RD PARTY NVR

uniview tec cameras are Onvif profile S compliant but sometimes when registering with a 3rd party NVR it may be necessary to use RTSP.

Camera

uniview tec camera RTSP
rtsp://"user":"password"@"IP address"/media/video"stream" - This is the Onvif stream
Example rtsp://admin:admin@192.168.1.20/media/video2

NVR / HVR

To access a camera that is connected to a uniview tec NVR or HVR use the following RTSP.
rtsp://<IP address>:<Port>/unicast/c<Channel>/s<Stream>/live

Stream – 0 for main stream or 1 for sub stream.

Example
rtsp://192.168.10.200:554/unicast/c1/s0/live - Channel 1 Stream Main
or
rtsp://192.168.10.200:554/unicast/c10/s1/live - Channel 10 Stream Sub

This can also be found in the NVR or HVR if you go to Port under Network in Setup.