Adding and Configuring the CV4IP-4 2T

The following items can be found within the box:

- CV4IP-4
- CV4IP-4 power supply
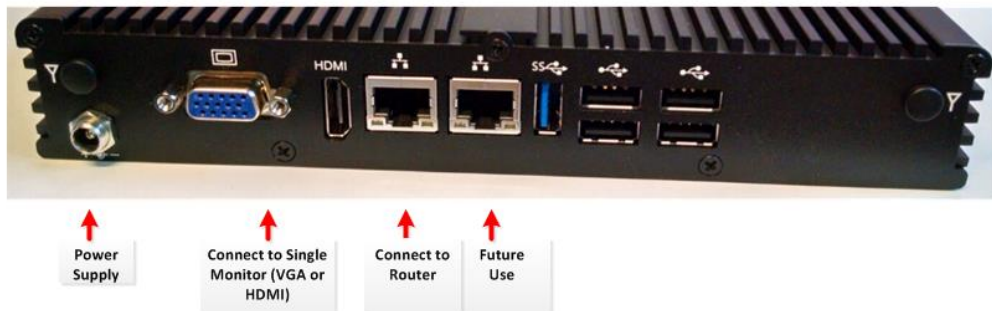- 3 foot Ethernet cable

Items not included:

- A display monitor
- VGA or HDMI cable for monitor (Note: only one can be used at this time)

The CV4IP-4 has connectors on both sides. The primary connectors can be found on the back panel. Only connectors shown with a red arrow are active at this time. Other connectors are rerserved for future use.

To install the Gateway, make the following connections to the CV4IP-4:

- Ethernet cable to the router.
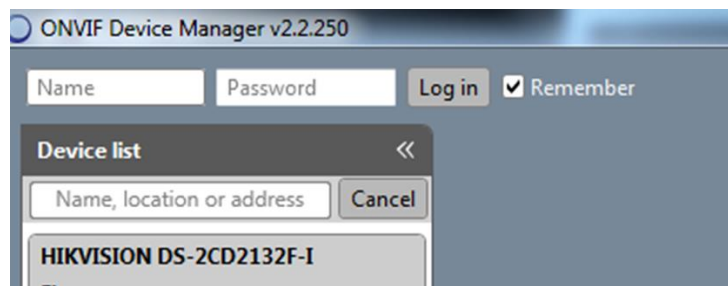- Provided power supply to power outlet.

You may connect a VGA or HDMI monitor if local matrix display functions are required. If you plan to use a monitor, make sure that it is plugged in to the CV4IP-4 *before* the Gateway is powered up. With the monitor connected, the CV4IP-4 will display the "awaiting configuration from portal" message. At this time, you are ready to add the device to the CheckVideo portal.

Open a web browser and log in to the CheckVideo portal (portal.checkvideo.net). From the Navigation bar, select Devices>Add a Device. Enter the CV4IP-4 serial number which can be found on the product sticker on the underside of the device. Enter a Device Name and click the Test Device button. Upon receipt of the "success" message, you can now match cameras to the CV4IP-4.
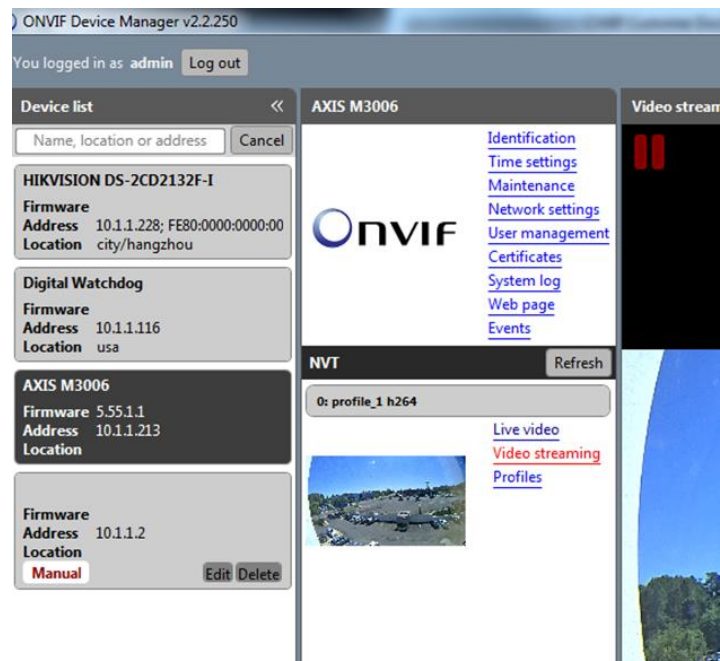
In preparation for adding cameras to the CV4IP-4, you should complete the following steps:

- Like other CheckVideo devices, the CV4IP-4 requires DHCP. This includes setting a DHCP address reservation for the CV4IP.
- The IP cameras require an IP address reservation. Working with the network administrator on site, the camera must be assigned either a static IP address or a DHCP address reservation. This is critical because if the camera's IP address changes, the CV4IP will lose connectivity to the camera. To resolve the issue, you will be required to configure the connections via the Devices>Configure IP Gateway page. Instructions for this can be found below.
- Using the IP camera's management tools, adjust the camera's Video Settings to work with the CV4IP-4. The parameters are:
    - Bitrate to less than 4Mbps
    - Frame rate to a multiple of 5 fps to a maximum of 30 fps
    - GOV length to 2x the frame rate **OR** i-frame interval of 2 seconds
    - Resolution up to 1080p
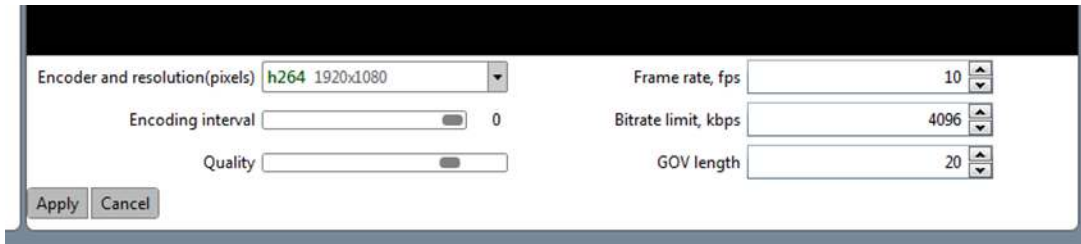   - Profile – Main (preferred) or High

If your camera's management tools do not display the option to change all of the settings above, you may find ONVIF Device Manager helpful. You can install this tool from http://sourceforge.net/projects/onvifdm/. Once installed, start the program and enter your camera's admin access credentials in to the ONVIF Device Manager interface.

Select the camera from the list of visible cameras on the left side of the screen. Click on the Video Streaming link.
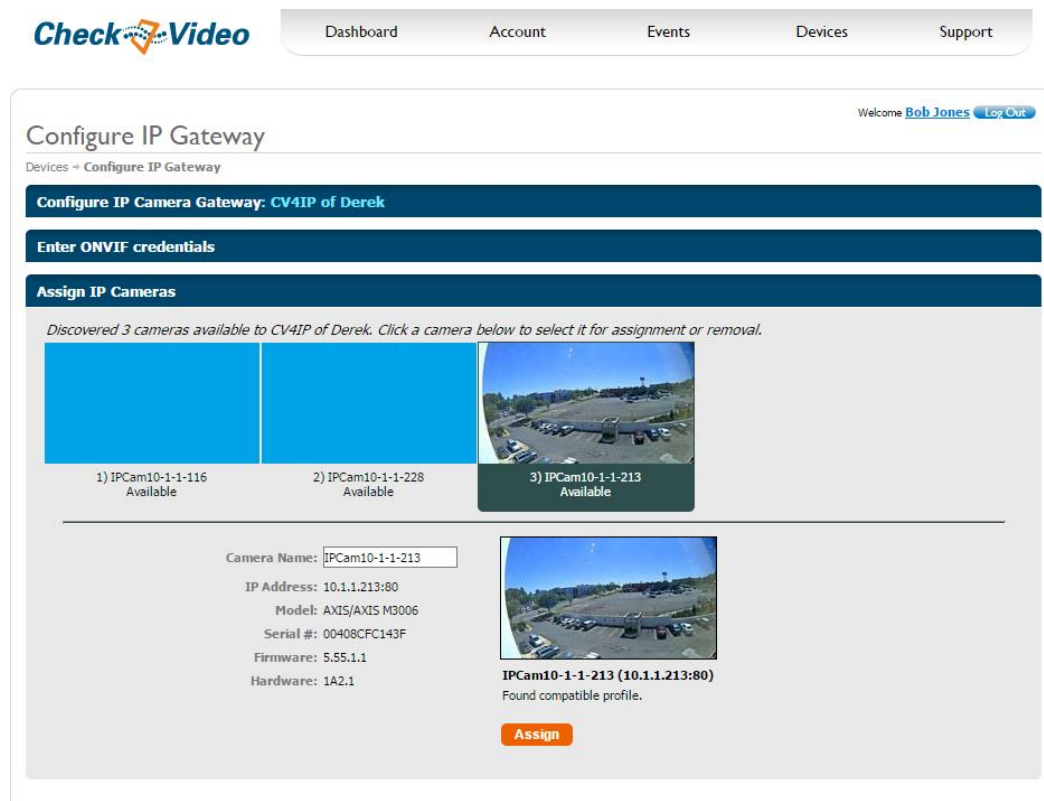
Go to the Settings page where you can set the Resolution, Frame Rate and GOV length values as required by the CheckVideo CV4IP. Select Apply to save these settings.

To confirm that the camera settings will work with the CV4IP, CheckVideo has created an HD Analytics Gateway Validation tool. The tool can be found at www.checkvideo.com/support. Instructions for using this tool can be found on the document "How to Use the Camera Validation Tool". We recommend that you run the Validation Tool before moving forward with the installation.

Now that the camera settings are updated, you need to associate the CV4IP to cameras on the same network. From the CheckVideo portal, go to Devices>Configure IP Gateway:

- Select the CV4IP-4 from the drop-down menu
- Enter the ONVIF credentials for the camera. If you have more than one set of ONVIF credentials for the cameras you wish to add, use those credentials that apply to the majority of cameras to be added.
- Click Discover Cameras. At this point, all cameras visible to the CV4IP-4's network will appear at the top of Assign IP Cameras image carousel. The default camera name is associated to the local/internal IP address of that camera.

- If a background image could be obtained via the ONVIF credentials, the camera view will appear. If not, a blue box will appear. This does not mean that there is anything necessarily wrong. It is possible that the background image did not complete in time or that the camera does not support background image.
- Click a thumbnail within the image carousel to begin camera assignment. The camera details will appear below. It is at this point that you can rename the camera. If you have not updated your camera settings, you will receive a reminder to do this before you continue. Click the Assign button. The CheckVideo portal will let you know if you are successful.
- Should the camera assignment fail because the CV4IP-4 cannot configure the RTSP connection, a warning message will appear:

First, confirm that your camera's Video Settings have been adjusted to meet the CV4IP-4 requirements. Next enter the requested RTSP information for your camera:
   o RTSP Username (if required by camera)
   o RTSP Password (if required by camera)
   o RTSP URL

If you do not have this information, please refer to your camera manufacturer's documentation. Once the RTSP details are populated, click Verify to complete assignment of camera to the CV4IP-4.

Once all cameras have been assigned to the CV4IP-4, go to Devices>Configure Device. Select the CV4IP from the dropdown and begin setting the Event zones, schedule and notifications for each camera. Remember to Save at the completion of each camera's configuration.