

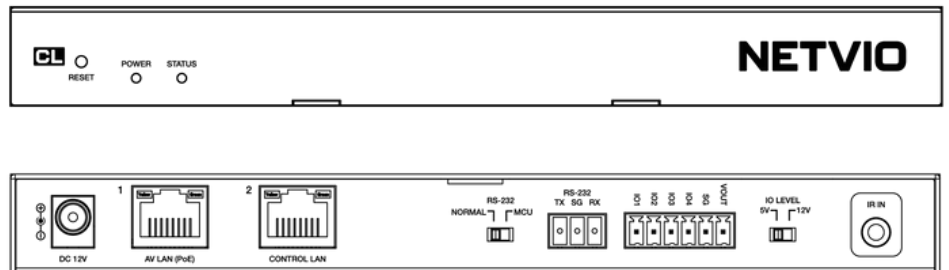
IP-JP4-CL-10

NETVIO

JP4 SERIES AVOIP CONTROLER (CL)

BASIC DISCOVERY & SET-UP

ISSUE 2 @ 21072023



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Safety Information



Attempts to remove product casings could result in electrical shock. Please do not attempt to repair the device. In the event of product service requirements, please contact Netvio Ltd or an authorised reseller for service procedures. Any unauthorised attempt to repair the product or attempts to replace components with non-approved parts will invalidate the product warranty. For full warranty conditions, please visit www.netvio.co.uk

The Netvio IP-JP4-CL-10 is an advanced AVoIP (Audio-Visual over Internet Protocol) centralized controller that sets a new standard for managing and distributing multimedia content across IP networks.

This state-of-the-art device boasts the latest in user interface design, enabling seamless integration and control of Netvio encoders, decoder and an array of 3rd party devices from a centralized location.

Whether in large-scale commercial installations, educational institutions, or professional media environments, this AVoIP centralised controller is a game-changer, delivering unparalleled performance and reliability for modern multimedia networking needs.

CABLE & CONNECTIONS

- Advertised cable distances are for guidance only. Many factors can effect transmission distances including cable construction, quality, install standards, patch panels, faceplates and external factors such as electromagnetic interference (EMI).
- This product is designed to run over unshielded twisted pair Cat 6/6a/7 cable. Some consideration is required when installing shielded (STP) category cable ensuring all drain wires and shielding are correctly grounded.
- All RJ45 terminations should follow EIA/TIA-568-B terminations and not simply wired Pin 1-1, Pin 2-2. The 568-B standard involves the splitting of the green pair to pins 3 & 6.
- Maintain twists within the Cat 6/6a/7 cores up to the point of termination.
- Maintain gradual bends when installing category cable, ensuring a minimum radius of 25mm where possible. Avoid sharp bends or twists in the cable avoiding taught or stretched cable at all times.
- When dressing the cable use moderate to low pressure, avoiding pinching of the cable jacket.
- Do not splice, join or bridge the cable at anytime, as this will undoubtedly cause transmission issues.
- Use moderate to low pressure when pulling category cable avoiding pressures in excess of 11kgf (of force).
- Keep category cable away from sources of EMI (electrical cables, transformers, light fixtures) ensuring a minimum parallel distance of 300mm, crossing at right angles if absolutely necessary.
- Ensure cable is correctly tested, understanding that a basic continuity check may not be sufficient to identify issues or to certify cable performance.
- Always check local regulations relating to building and fire codes.

IN-THE-BOX

- 1x PoE CL Controller
- 12v External Power Supply
- Mounting Brackets

WARRANTY

- Standard Warranty details available at www.netvio.co.uk/warranty

RECOMMENDED PREPARATIONS

NETVIO SOFTWARE DOWNLOAD

The Netvio (360) configuration software can be downloaded at: www.netvio.co.uk/config

Complete the simple form, and further instructions will be automatically emailed to you. **Please check your spam folder.**

Depending on the security settings on your PC or MAC, warnings may appear during the software installation process. It is safe to proceed past these warnings and continue with the software installation.

SYSTEM MASTER LIST

Both software and hardware provide ways to identify devices once installed. However, Netvio recommends creating a basic spreadsheet that includes the Encoders' and Decoders' last 6 digits of the MAC addresses, together with the assigned source inputs and display locations. It is also useful to detail the system component capabilities (if known). These steps can save you time, especially when installing a larger, complex system.

The mac address label is found on the top of each encoder and decoder. An example table would be:

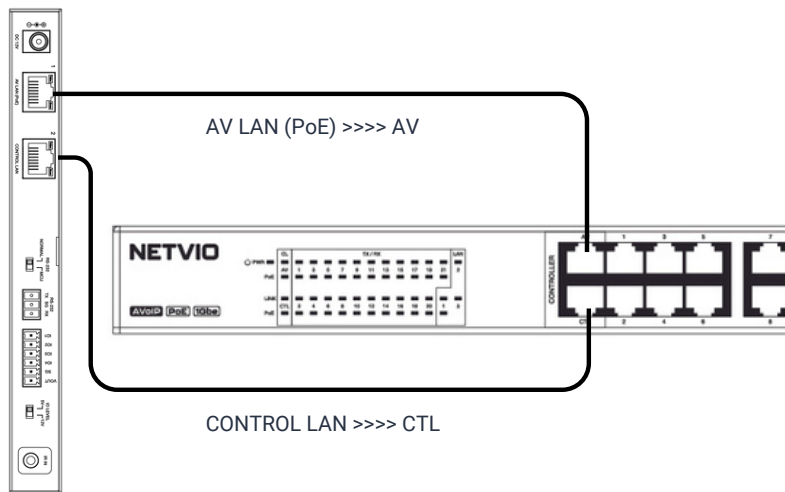
Encoder Mac Address	Source Type	Source Capability	System Allocation
500C01	Cable TV Box {1}	4K HDR	
500BFB	Digital Signage Player {1}	1080p	

Decoder Mac Address	Display Type	Display Capability	System Allocation
500AOC	Samsung 55"	4K HDR	
500AOE	LG 42"	1080p	

DHCP (Dynamic Host Configuration Protocol)

For the discovery process, it is important that your PC or Mac is set to automatic DHCP (Dynamic Host Configuration Protocol). By default, most computers are set to use DHCP. Setting a static IP at this stage is not required and will interfere with the following set-up.

CL CONNECTIONS FOR NETVIO IP-SW SERIES SWITCHES



Netvio strongly recommends that the CL devices is rack mounted using the IP-RK-10. This rack is specially designed to ensure the correct airflow and operating temperature of the device.

The adjacent diagram shows the correct wiring configuration and should be followed to ensure for correct operation and device power.

The CL device is powered using standard PoE from either Netvio' IP-SW series switches or PoE supported 3rd party switches.

STEP 1 - CONNECTION TO NETWORK

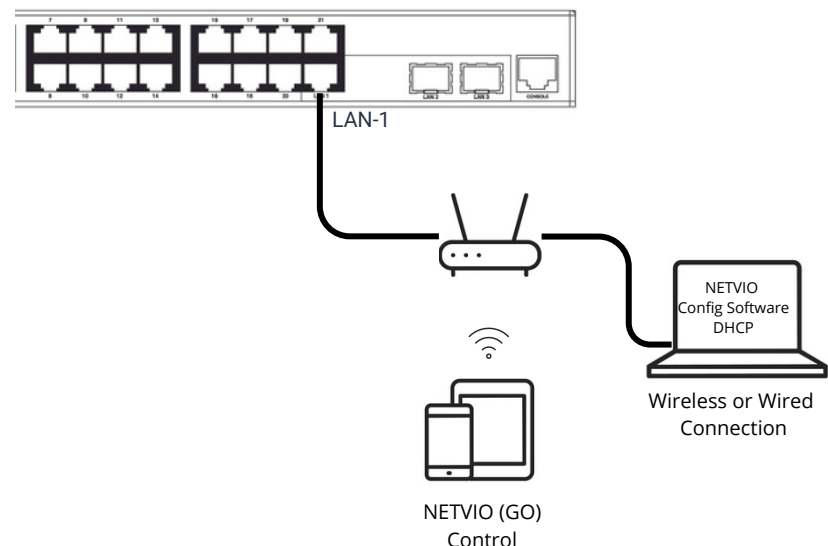
For initial system discovery and set-up Netvio recommends the basic network configuration as detailed by the adjacent diagram.

Connect your router directly to your Netvio JP4 Series switch using port labelled LAN-1.

Connect your DHCP enabled PC or MAC to your router using either Wi-Fi or direct network cable.

When using Netvio (Go) Control, ensuring all end-user devices such as phones or tablets are connected to the same wireless network.

Further details on Netvio (Go) Control are available at www.netvio.co.uk/support



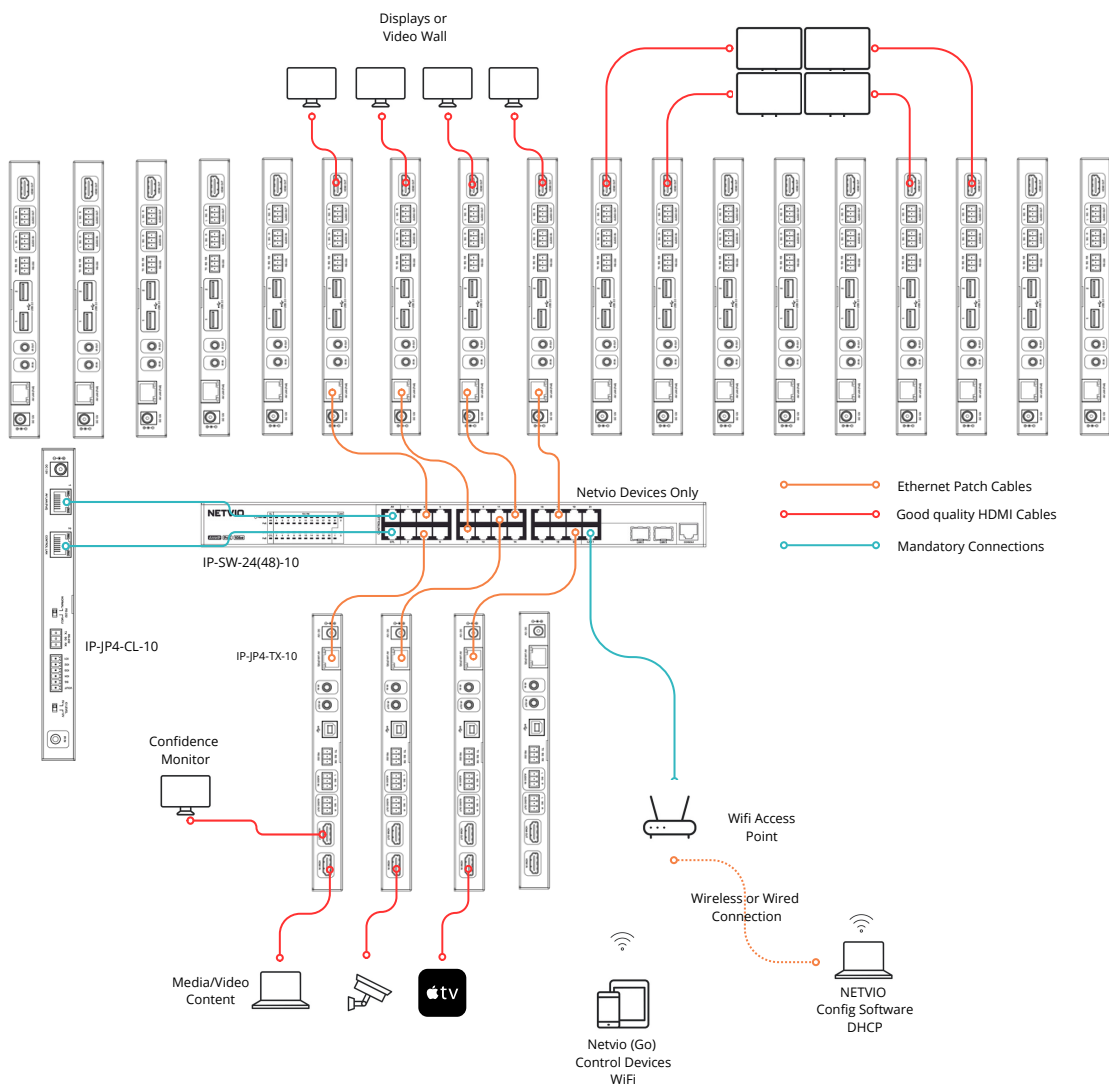
CONNECTING TO 3RD PARTY SWITCHES

If you planning to use a 3rd party switch, then Network recommends the following brands. Detailed instructions can be found at www.netvio.co.uk/support. If you are considering using a third-party switch that is not listed, please contact support@netvio.co.uk, where compatibility checks can be made.

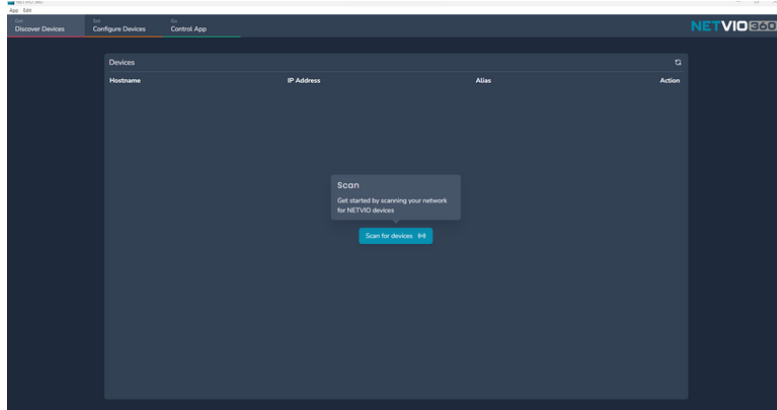
- Araknis
- Draytek
- Cisco CBS & SG ranges
- Netgear AV Line

STEP 1 - INITIAL SYSTEM CONNECTIVITY

The following diagram represents wider system connectivity. Consideration should be given to completing encoder and decoder installations, remembering to record devices on your **system master list**. Once the CL is discovered, the next immediate step is to identify and configure encoder and decoder devices on the network.



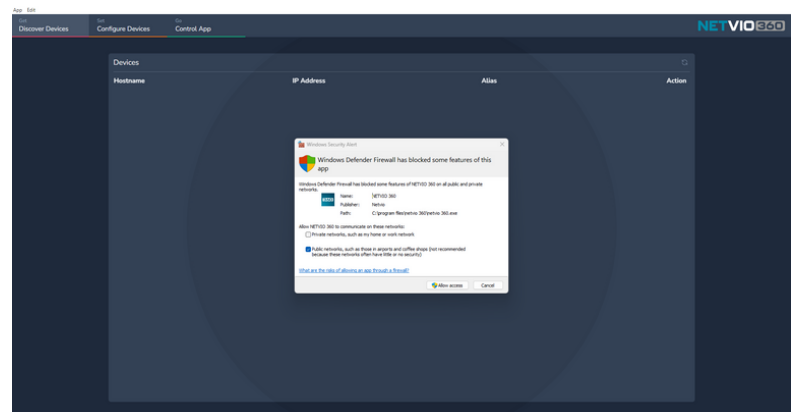
DISCOVERING THE CL ON NETWORK



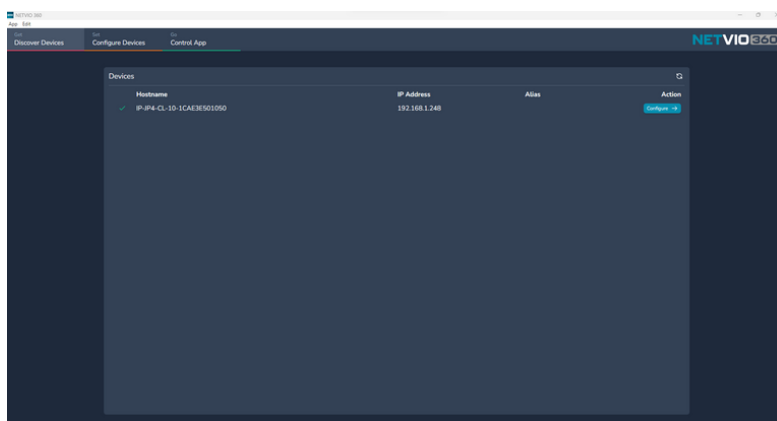
On completion of previous steps, including the connection of the CL and computer to the same network, you can start the 'Scan for devices' process.

WINDOWS FIREWALL & ANTI-VIRUS

If anti-virus or firewall pop-ups appear, add the Netvio 360 configuration software to the 'allowed' list of applications.



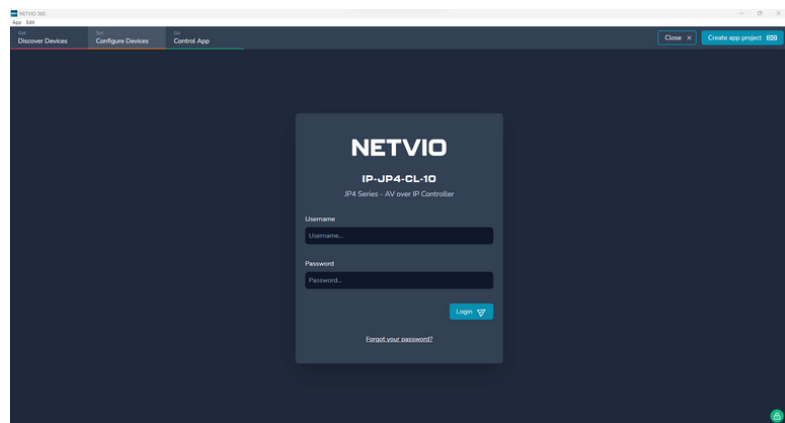
SYSTEM CONFIGURATION



Once the Netvio software has discovered the IP-JP4-CL device you can select the 'configure' option.

If the CL is not discovered on the first attempt, try the scan one more time. If the CL is still not discoverable, then follow **trouble shooting tips**.

DEFAULT SYSTEM PASSWORD



The default username and password are as follows (lowercase):

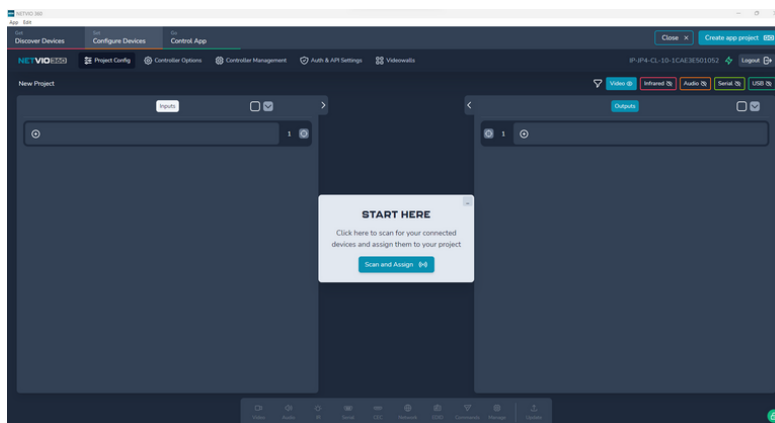
User Name: admin
Password: password

You can change default settings, which is in a later part of this user guide.

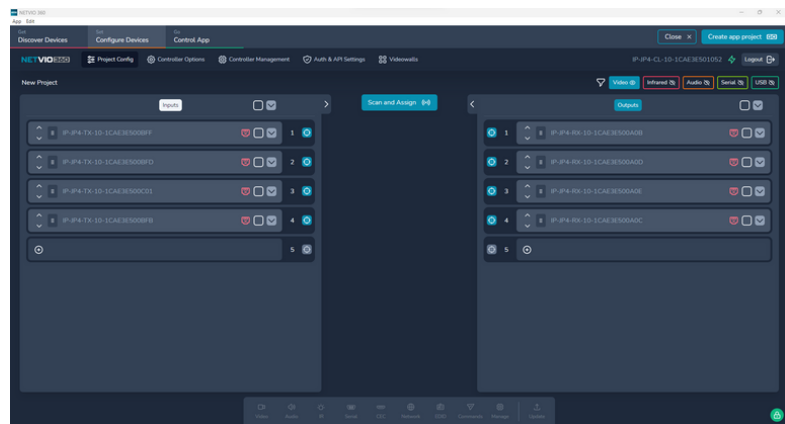
DISCOVERING ENCODERS & DECODERS

Once you have successfully logged in, you are presented with a 'Scan and Assign' option.

At this stage it is important that your encoders and decoders are connected to the network switch.



DISCOVERING ENCODERS & DECODERS

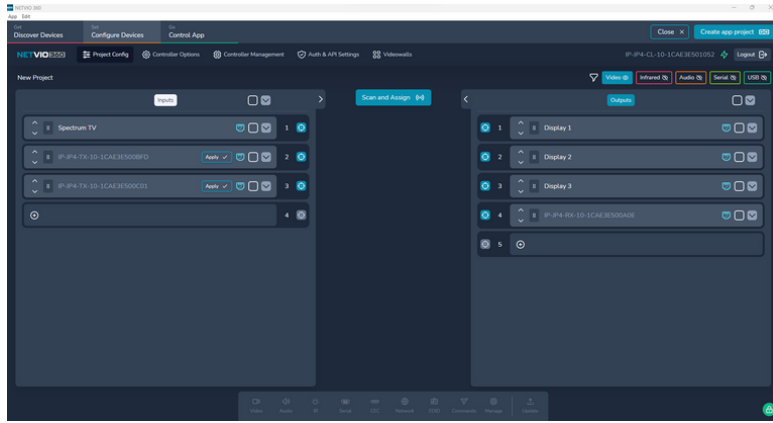


After the scanning process is complete, your encoder inputs are listed on the left and your decoder outputs are listed on the right.

While the red icons are evident, the system is configuring your endpoints. The system discovery and sync process is complete, when each device has a stable blue network icon alongside all devices.

Depending on the system size, this process can take several minutes.

NAMING OF ENCODERS & DECODERS

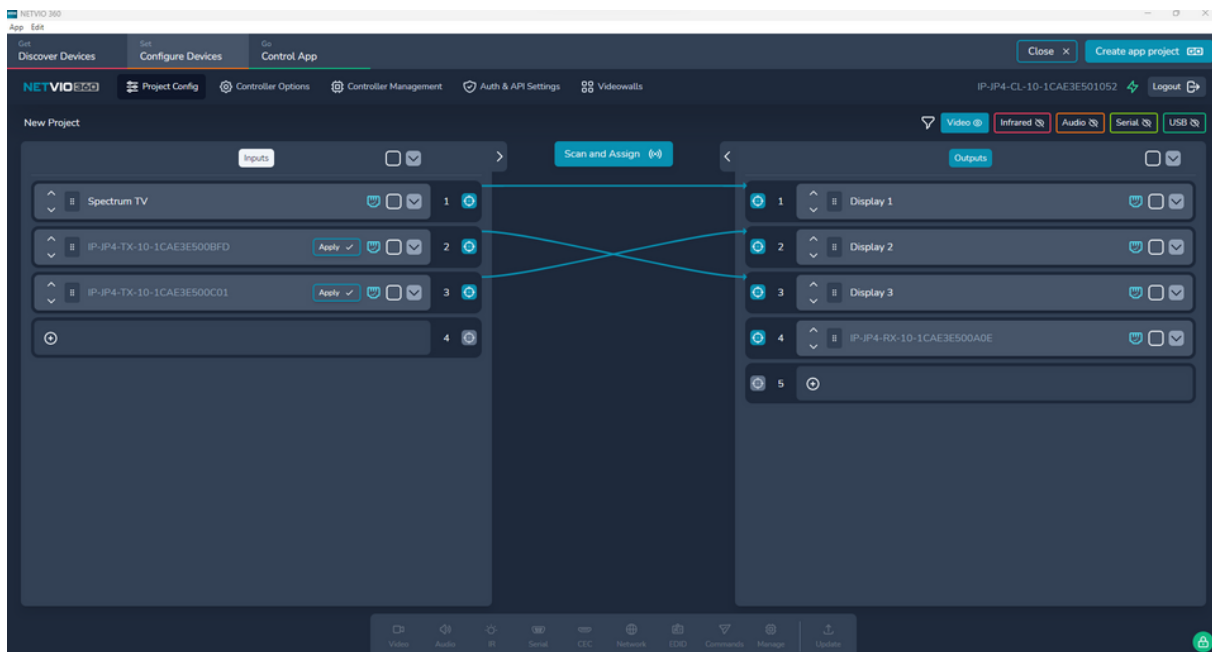



This user guide does not provide full user information on every software feature as this is covered in detail found at www.netvio.co.uk/support

Once you have a full compliment of configured encoders and decoders all with stable blue icons, you can start to replace MAC address identifiers with more friendly alias's, remembering to update your **master system list**.

Simply click any device to enter your friendly reference and press apply to set.

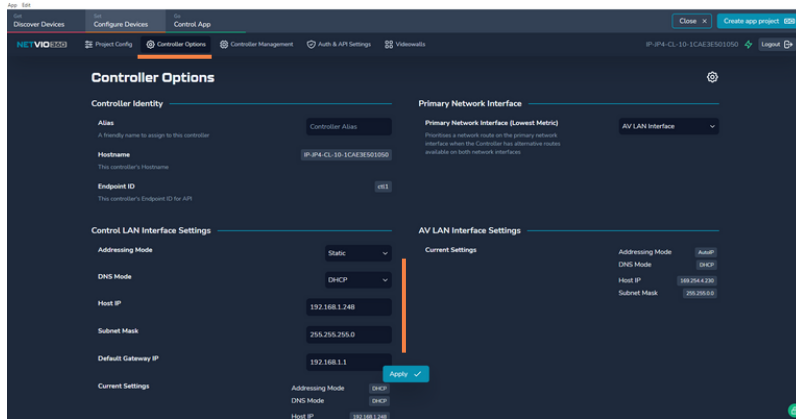
BASIC SYSTEM TEST



After updating device labels and assuming displays and media sources are connected to encoders and decoders, you can carry out basic switch testing by selecting the  icons relevant to your desired source to display switch.

Depending on your media sources and displays, it is possible that further video settings are required, especially relating to HDCP versions, EDID or Scaling. Please refer to other support documentation and videos available at www.netvio.co.uk/support.

GIVING THE CL STATIC IP ADDRESS



It is a reasonable step to give the IP-JP4-CL-10 a static IP, once the initial discovery process is complete. Unless a direct request from network administrations, this is the only JP4 series device that requires a static IP address.

The use of www.advanced-ip-scanner.com is a useful tool in finding a free IP address that doesn't conflict with other devices on the network.

A reboot of the CL and software is recommended after changing the IP address.

CL reboot available by going to Controller Management on the top menu..

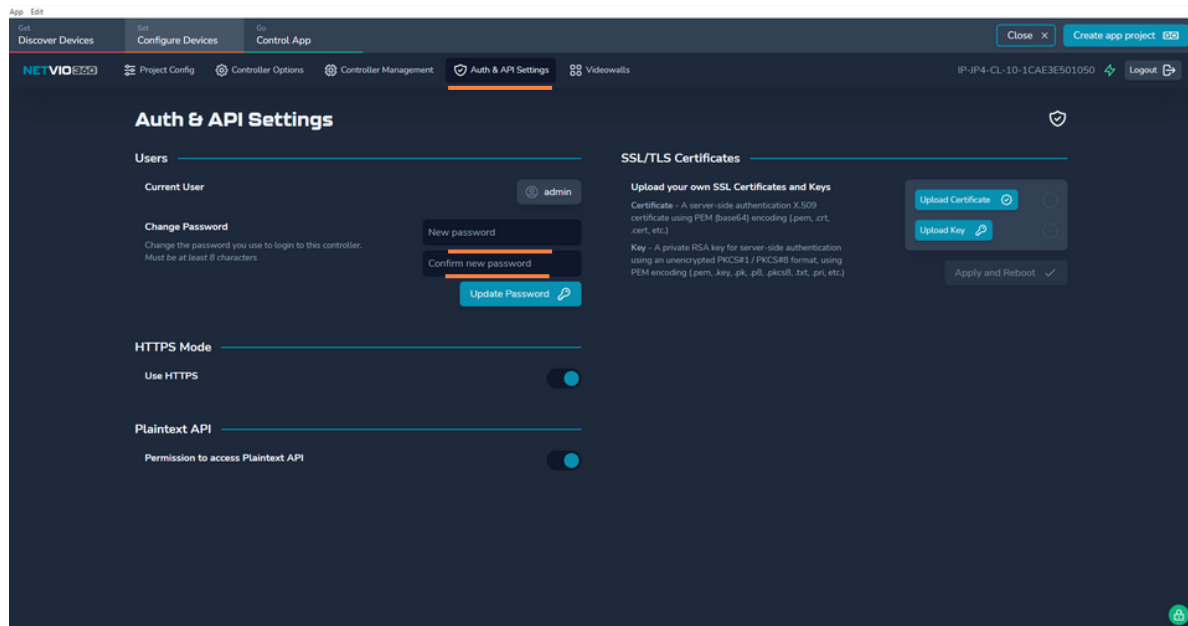
CHANGING DEFAULT PASSWORD

RISK OF LOSING SYSTEM SETTINGS



Using the top menu bar, go to the Auth & API settings tab. You can replace default user name and password with something more secure and unique to your project.

Due to stringent security, please be aware that losing this password, will require a full system reset of the system and the potential loss of your project settings.

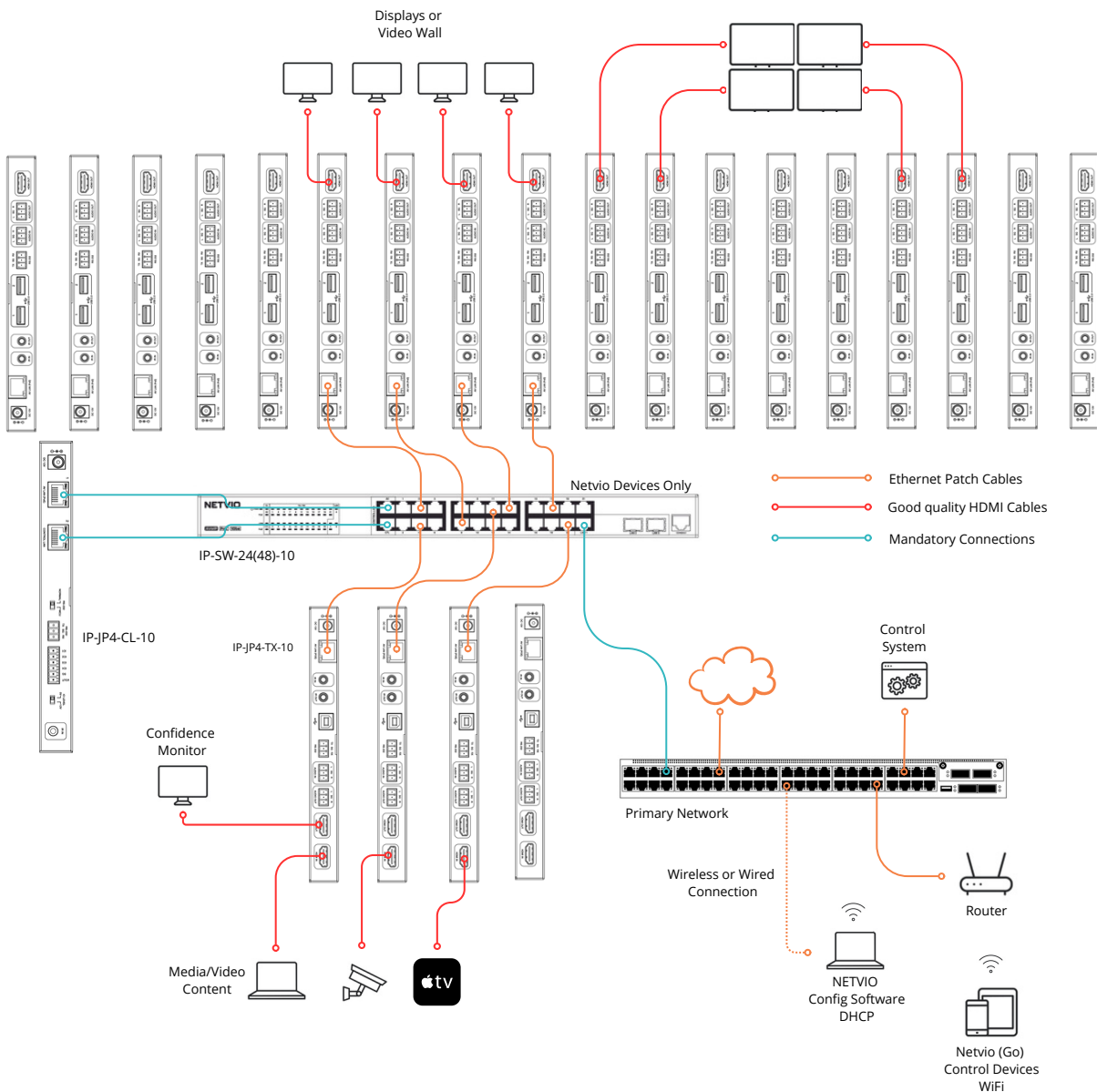


STEP 2 - CONNECTING TO WIDER NETWORK

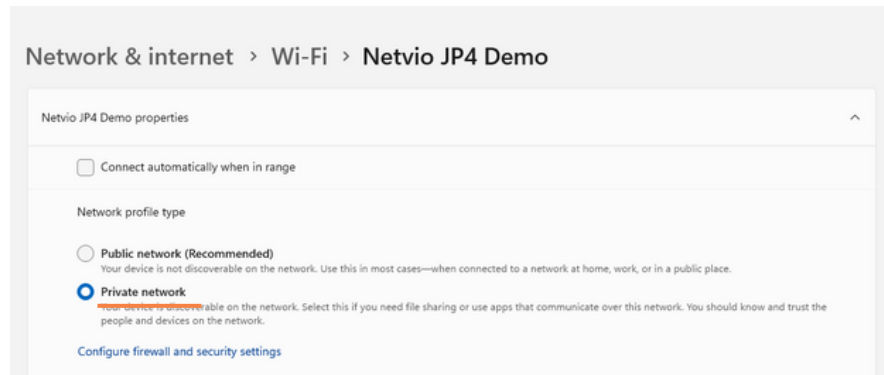
Once system functionality has been confirmed in it's basic form, then the IP-SW series switch can be connected to a wider network infrastructure.

The IP-SW Series Netvio Switches are designed to be connected directly to the network router, via the copper or SFP LAN ports. These ports are preconfigured to VLAN 1 and as such, the switch does not support more complex networks with tagged and untagged VLANs. If more complex network topologies are required, the please refer to 3rd party switch set-up guides available at www.netvio.co.uk/support

The LAN port should connect directly to the network router or switch/smart switch used by devices that will be controlling the system, including Netvio Go or third-party control systems, as well as devices that wish to access the HQ preview stream from the Netvio IP-JP4-TX-10 encoders.



TROUBLE SHOOTING - UNDISCOVERABLE CL



If the CL is undiscoverable, then check the basics first including cable connections between the CL and your network switch.

Ensure the CL and computer are connected to the same network,

Make sure the router is connected to the correct port on the IP-SW series network switch.

A reboot of the computer, CL and router can also resolve any IP discovery issues.

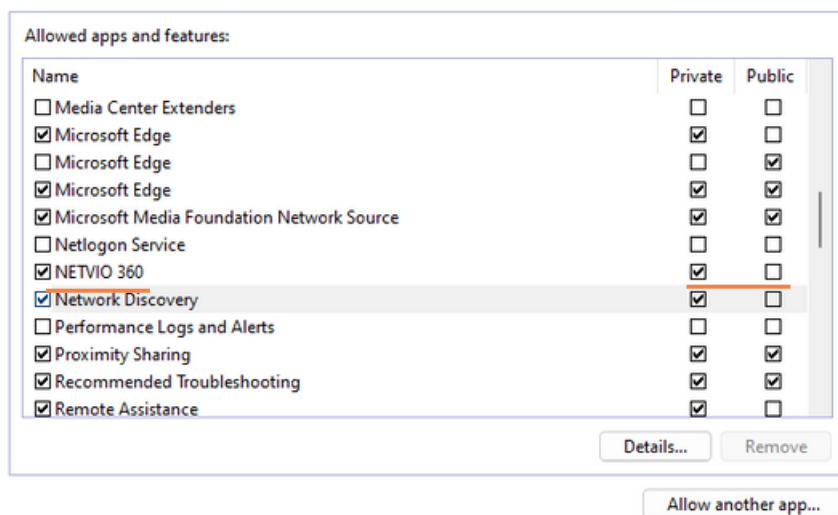
If using a 3rd party switch please refer to the network switch set-up guide available at www.netvio.co.uk/support.

Allow apps to communicate through Windows Defender Firewall

To add, change, or remove allowed apps and ports, click Change settings.

What are the risks of allowing an app to communicate?

Change settings



The next stage is to check the computer network settings, focusing on 2 area:

1) Ensure the network is set to Private and not Public

2) Check firewall settings, ensuring Netvio 360 is set to allow.

After these changes, restart the Netvio 360 software and repeat the scan.

Should you continue to have issues, the next step is to reset the CL device..

You can reset the CL or any other JP4 Series device by using the following process:

- 1) Use a blunt end pin
- 2) Press and hold the reset button
- 3) First the LEDs will flash slowly.
- 4) Only release the pin when the LEDs start flashing quickly.
- 5) The device will take a moment to reboot, eventually showing a solid RED & GREEN LED.
- 6) Do not disconnect the power during the reboot process..

