MEDIA ENCODER | NSR
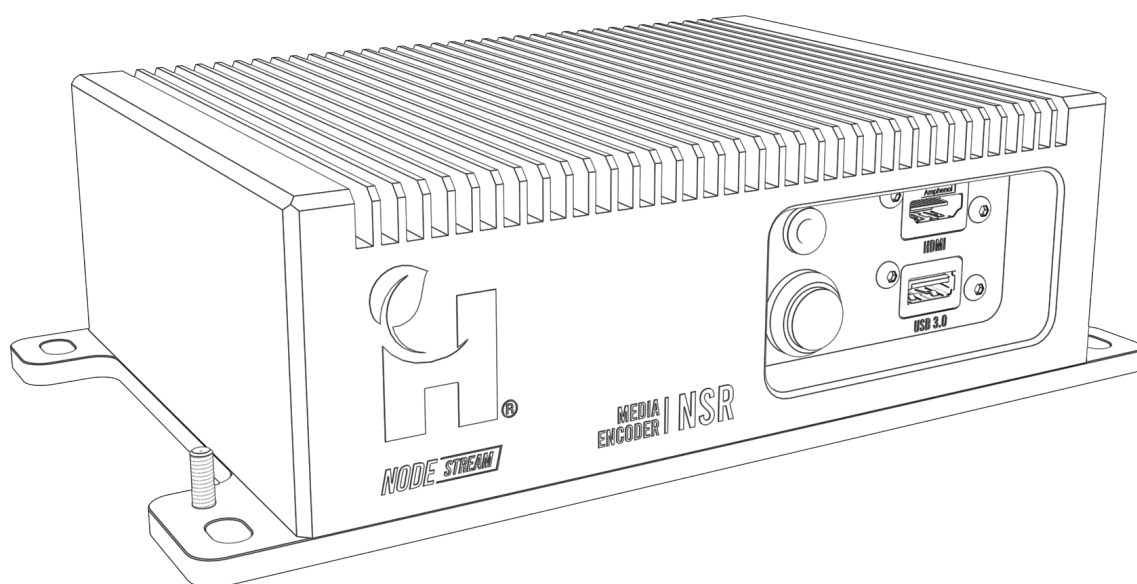
User Manual

Please read these instructions carefully before using this product

---

⚠️ Information for your safety

The device should only be serviced and maintained by qualified service personnel. Improper repair work can be dangerous. Do not attempt to service this product yourself. Tampering with this device may result in injury, fire, or electric shock, and will void your warranty.

Be sure to use the specified power source for the device. Connection to an improper power source may cause fire or electric shock.

⚠️ Operation Safety

Before using the product, ensure all cables are not damaged and connected correctly. If you notice any damage, contact the support team immediately.

- To avoid short circuits, keep metal or static objects away from the device.

- Operating environment temperature and humidity:
  Temperature: Operating: -20°C to 70°C   Storage: -20°C to 65°C
  Humidity (non-condensing):   Operating: 0% to 90%   Storage: 0% to 95%

- Unplug the device from the power outlet before cleaning. Do not use liquid or aerosol cleaners.

- Contact the support team support@harvest-tech.com.au if you encounter technical problems with the product.

Symbols

Symbol	Description
⚠️	Warning or caution to prevent injury or death, or damage to property.
📄	Extra notes on the topic or steps of the instructions being outlined.
ℹ️	Further information to content outside the scope of the user guide.
💡	Extra pointers or suggestions in executing instructions.

Contact and Support
support@harvest-tech.com.au

User Resources

Harvest Technology Pty Ltd
7 Turner Avenue, Technology Park
Bentley WA 6102, Australia
harvest.technology

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Warranty

The warranty for this product can be found online at:
https://harvest.technology/terms-and-conditions/

FCC Compliance Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the user manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

In order to maintain compliance with compliance regulations, shielded HDMI cables must be used with this equipment

CE/UKCA Compliance Statement

Marking by the (CE) and (UKCA) symbol indicates compliance of this device with the applicable directives of the European Community and meets or exceeds the following technical standards.

- Directive 2014/30/EU - Electromagnetic Compatibility
- Directive 2014/35/EU - Low Voltage
- Directive 2011/65/EU - RoHS, restriction of the use of certain hazardous substances in electrical and electronic equipment

Warning: Operation of this equipment is not intended for a residential environment and could cause radio interference.

# CONTENTS

Getting Started

Introduction

Powered by Nodestream™ proprietary technology the NSR™ is a 4 channel ultra-low latency encoder that delivers high-quality video and audio from digital sources at resolutions up to 1080p60. The NSR™ features a rugged IP67 rated weather proof chassis, complemented by high performance components, providing secure and reliable transmission of video, audio, and data. It's SWaP (size, weight & power) design make it ideal for use with unmanned assets.
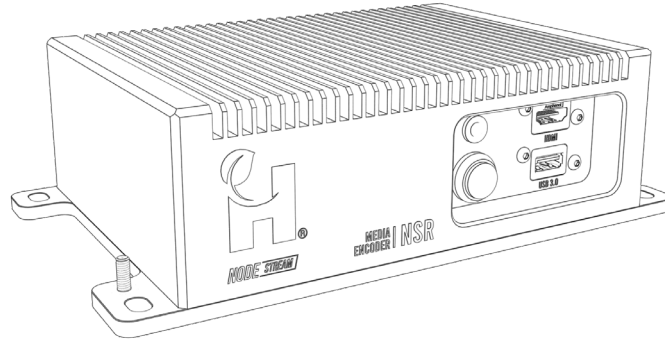
Key Features

- Low bandwidth, low latency HD streaming of up to 4 video channels from 8Kbps to 5Mbps
- Rugged IP67 rated
- -20°C to 70°C operating temperature with passive cooling
- Industrial connectivity
- Supports a wide range of industry standard video formats
- Multiple input types - USB and network streams
- Low power consumption
- Low bandwidth integrated Nodecom audio
- Up to 10 channels of serial, TCP or UDP data
- Military grade security - 384-bit encryption

Typical System Setup
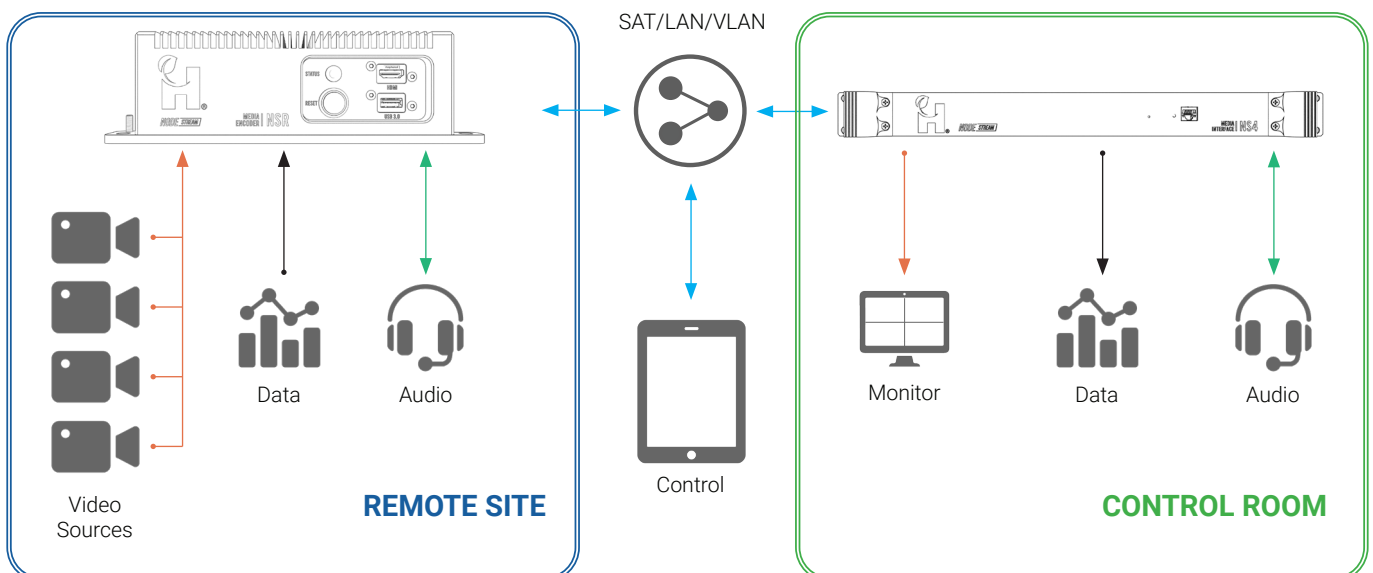
Connections

Front
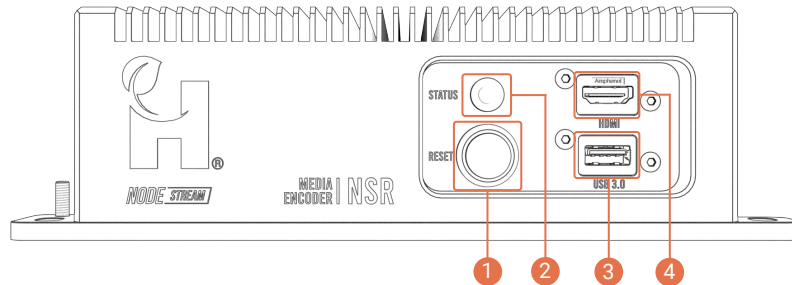
1. **Reset Button**
   Press to reset the system, press and hold to factory reset.

2. **Status LED**
   RGB LED to indicate system status.

   BLUE - Power on (Idle)   GREEN - Streaming   RED - Network Issue

3. **USB-A 3.0**
   Used for connection to input or audio devices, i.e. camera, video capture, keyboard, speakerphone.

4. **Display Output**
   HDMI output for connection to a monitor for configuration or used when device is in Decoder mode.

## Rear
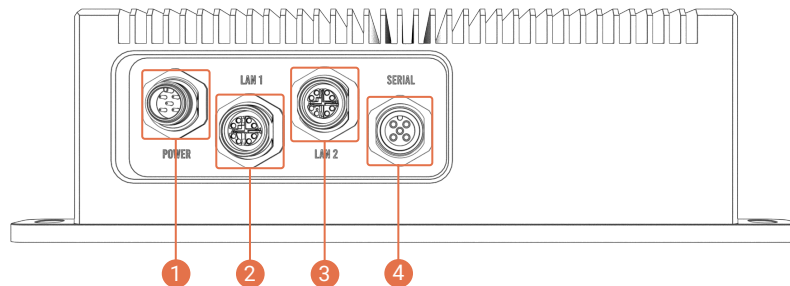
1. **Power Input**
   5 pin M12 A Coded Male - 9 to 28VDC power supply.

2. **LAN 1 - Gigabit Ethernet**
   M12 X Coded Female - for connection to the customer network.

3. **LAN 2 - Gigabit Ethernet**
   M12 X Coded Female - for connection to networks containing network streams.

4. **Serial**
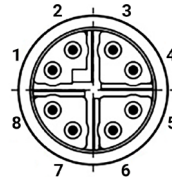   5 pin M12 A Coded Female - RS232 serial input or output (/dev/ttyTHS1)

Pinouts

POWER - M12 A-coded male		
Pin	Description	Cable
1	+ (9 to 15V)	Brown
2	+ (9 to 15V)	White
3	GND	Blue
4	GND	Black
5	Remote on/off	Grey
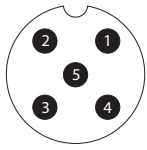
LAN1/2 - M12 X-coded female			
PIN	Description	Pin	Description
1	BI_DA+	5	BI_DD+
2	BI_DA-	6	BI_DD-
3	BI_DB+	7	BI_DC+
4	BI_DB-	8	BI_DC-

SERIAL - M12 A-coded female /dev/ttyTHS1		
Pin	Description	Cable
1	RXD	Brown
2	TXD	White
3	CTS	Blue
4	RTS	Black
5	GND	Grey

M12 A Coded Male
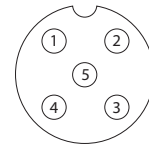
M12 X Coded Female

M12 A Coded Female

⚠️ Protective cap must be installed on unused LAN ports to maintain IP rating

📄 Nodestream devices are supplied with a Quick Start Guide for installation. Scan the User Resources QR code on the last page for access

Grounding

It is recommended to ground the device when mounted near sensitive devices to ensure "best" EMC/EMI performance. An M5 ground connection point has been provided for this purpose.

M5 Ground Stud

Configuration

Overview

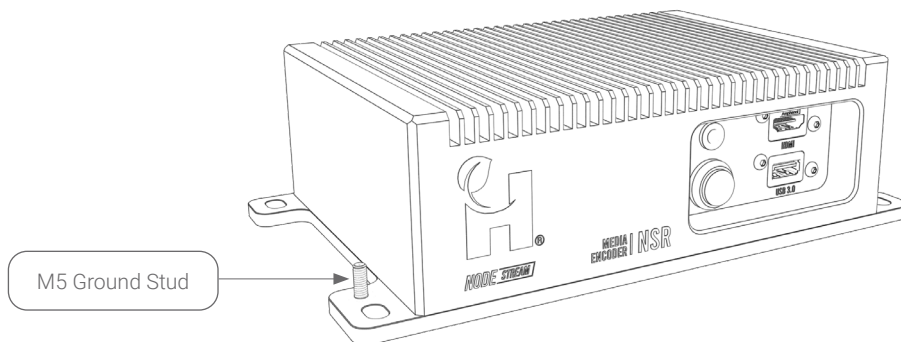Configuration of your Nodestream device is performed via the system Web Interface. From here you can:

- View system information
- Configure network(s)
- Set user login credentials
- Enable/Disable remote support
- Set device function
- Manage Enterprise Server settings
- Manage updates

Access

The Web Interface can be accessed locally on the device, or via a web browser of a PC connected to the same network. Follow the steps below to log in.

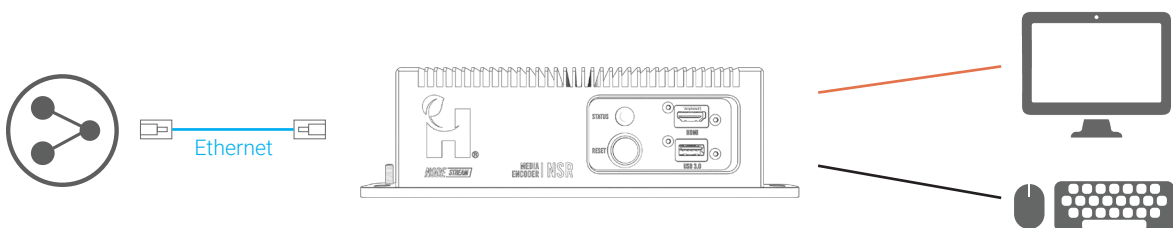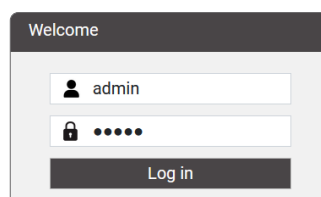> Default username = admin
> Default password = admin

> Web Interface is not available until the Nodestream software has started

Local Access

1. Connect the LAN 1 port of your device to your LAN, monitor, USB keyboard/mouse and power it up.
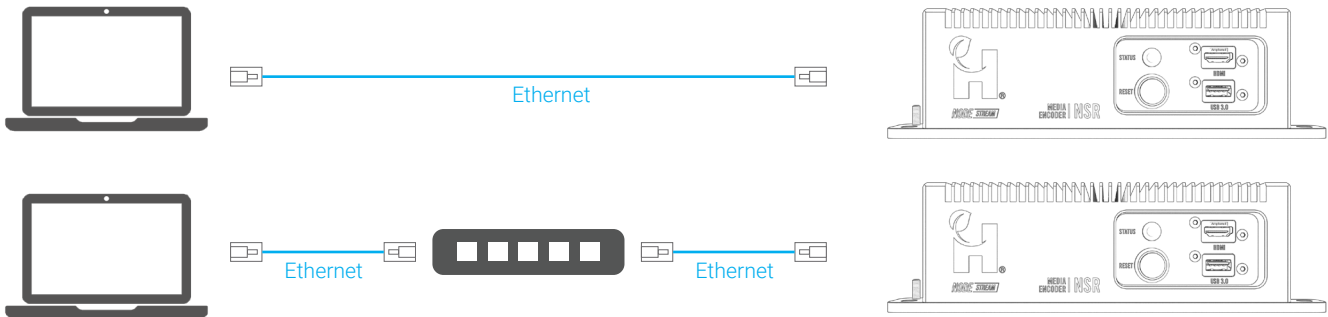

2. Wait for the software to start and press alt+F1 on your keyboard or right click and select configuration.

3. When prompted, enter your login details.

Web Access

Connect your computer to the same network as your device or directly to the device via an Ethernet cable.

DHCP Enabled Network

1. Connect the LAN 1 port of your device to your LAN and power it up.

2. From a web browser of a computer connected to the same network, enter the device IP address or http://serialnumber.local , e.g http://au2234nsrx1a014.local

3. When prompted, enter your login details.

> Serial number can be found on the side of your device

Non DHCP Enabled Network

When a device is connected to a non DHCP enabled network, and its network has not been configured, the device will fall-back to a default IP address of 192.168.100.101.

1. Connect the LAN 1 port of your device to your LAN and power it up.

2. Configure the IP settings of a computer connected to the same network to:

IP	192.168.100.102
Subnet	255.255.255.252
Gateway	192.168.100.100

3. From a web browser, enter 192.168.100.101 in the address bar.

4. When prompted, enter your login details.

> ⚠ When configuring multiple devices on a non DHCP enable network, due to IP conflicts, only 1 device can be configured at a time. Once a device has been configured, it may be left connected to your network

Initial Configuration

The primary network of your Nodestream device must be configured to ensure a stable connection and prevent the device from setting it's IP address to default static, refer "Non-DHCP Enabled Network" on page 5 for further information.

1. Login to the Web Interface.
2. Once logged in, you will notice an orange prompt to configure the MAIN interface.
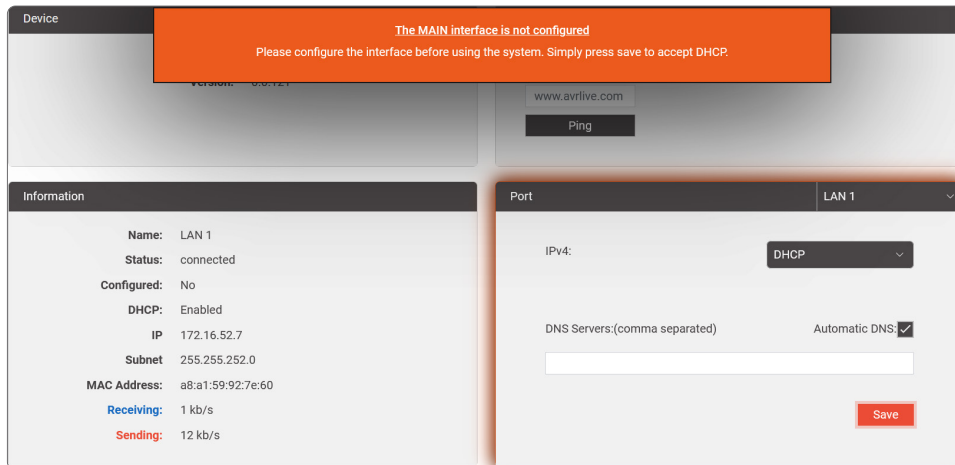
3. If connected to a DHCP enabled network click save in the "Port" window. Refer to "Port Configuration" on page 8 for configuration of static IP settings.
4. If your device is managed by an Enterprise Server, enter details on the System page. Refer to "Enterprise Server Settings" on page 12.

Network

This section of the Web Interface provides information on device software version, network information, testing , and configuration of device network adapters.

Information

Displays information related to the selected port (port can be selected from the drop down in the "Port" section)

Name
Name of the port

Status
Displays connection status of the port - connected or down (unplugged)

Configured
If "Yes", the port has been configured to either DHCP or manual

SSID (WiFi only)
Displays connected WiFi network SSID

DHCP
Shows if DHCP has been enabled or disabled

IP
Current port IP address

Subnet
Current port subnet

MAC Address
Port hardware MAC address

Receiving
Live port receiving throughput

Sending
Live port sending throughput

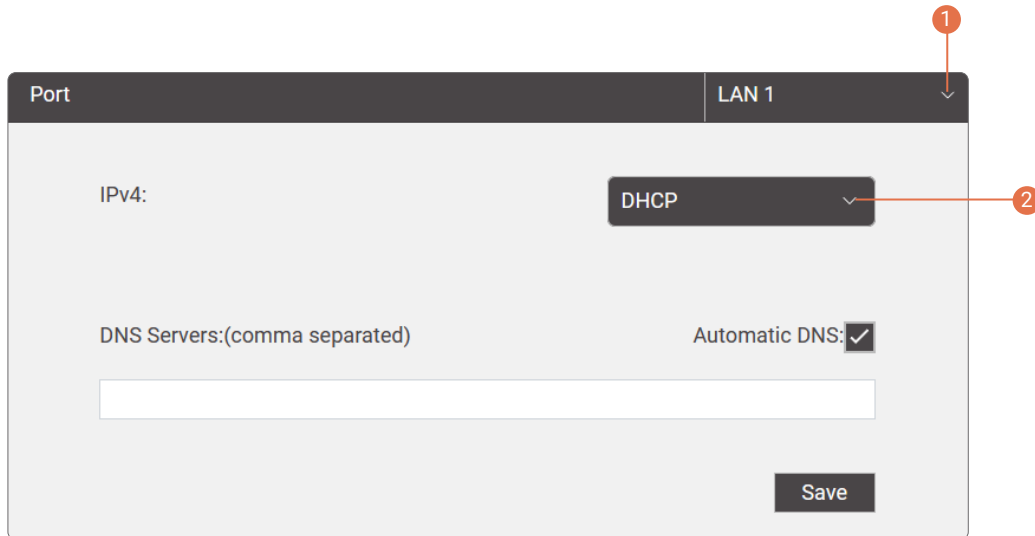| Information	
Name:	LAN 1
Status:	connected
Configured:	Yes
DHCP:	Enabled
IP	172.16.52.10
Subnet	255.255.252.0
MAC Address:	a8:a1:59:92:7d:ca
Receiving:	12 kb/s
Sending:	34 kb/s

Testing

Helpful network testing tools for confirmation of network settings and capabilities.

Speed Test
For testing available upload and download bandwidth.

Ping
For testing connection to the Nodestream server (www.avrlive.com) or to confirm connection to other devices on your network, i.e. IP cameras.

1. Enter IP address to ping.

2. Click Ping button.

3. Notification will display followed by either:

   • Ping time in ms   successful
   • Could not reach the IP address   unsuccessful

Testing
Speed Test
www.avrlive.com
Ping

Port Configuration

Configuration section for device networks. Ports can be configured to DHCP or Manual (static IP)

1. **Port Selection**
   Drop down, displays available network ports. Select for configuration.

2. **Configuration Type**
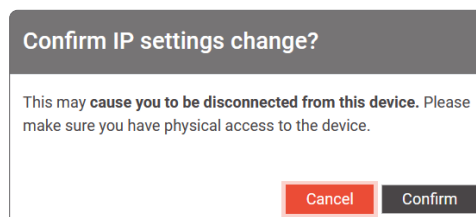   Drop down, select either DHCP or manual.

> - Only IPv4 networks are supported
> - Where an Ethernet and WiFi connection is configured, the device will favor the WiFi connection

Ethernet

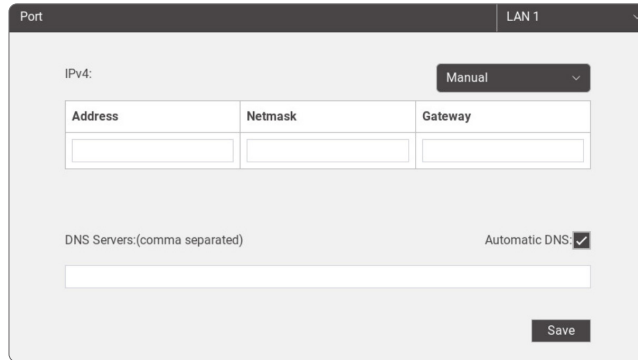1. Select the port you'd like to configure from the "Port" drop down.

DHCP

1. Select "DHCP" from the "IPv4" drop down, if not already selected, then save.

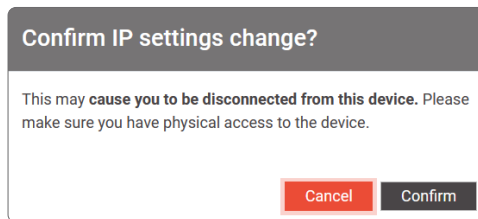2. When prompted, confirm IP settings change. Network setting applied prompt will be displayed.

3. Confirm network information is correct.

Manual

1. Select "Manual" from the "IPv4" drop down and enter network details as provided by your Network Administrator, then save.

2. When prompted, confirm IP settings change. Network setting applied prompt will be displayed.

3. Enter the new IP address or http://serialnumber.local in your web browser to log back into the Web Interface.

4. Confirm network information is correct.

WiFi

WiFi is only available if an optional USB WiFi adapter is installed.
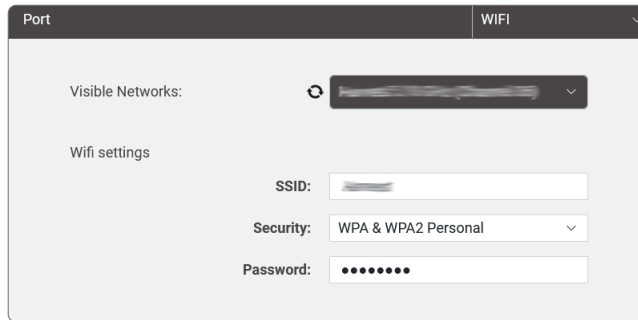
Verified compatible WiFi adapters:

- TP-Link T2U v3
- TP-Link T3U
- TP-Link T4U

1. Select "WiFi" from the "Port" drop down.

2. Select network from list of available networks from the "Visible Networks" drop down.
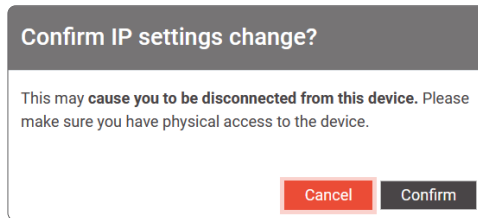
3. Confirm security type is correct and enter password.

DHCP
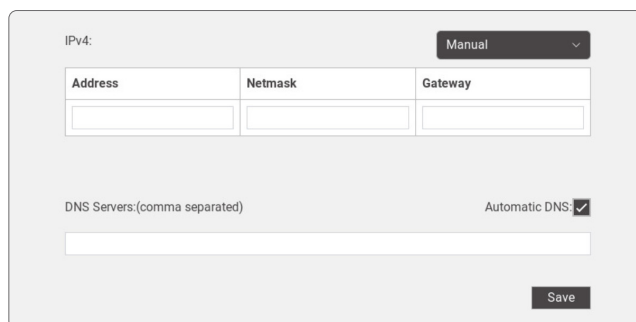
1. Select "DHCP" from the "IPv4" drop down, if not already selected, then save.

2. When prompted, confirm IP settings change, a network setting applied prompt will be displayed.

3. Select the WiFi port and confirm network information is correct.

Manual

1. Select "Manual" from the "IPv4" drop down and enter network details as provided by your Network Administrator, then save.
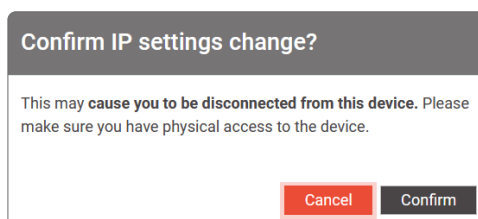

2. When prompted, confirm IP settings change a network setting applied prompt will be displayed.

3. Enter the new IP address in your web browser to log back into the Web Interface.

4. Select the WiFi port and confirm network information is correct.

Disconnect

1. Select WiFi from the "port" drop down.

2. Click the "Disconnect" button.
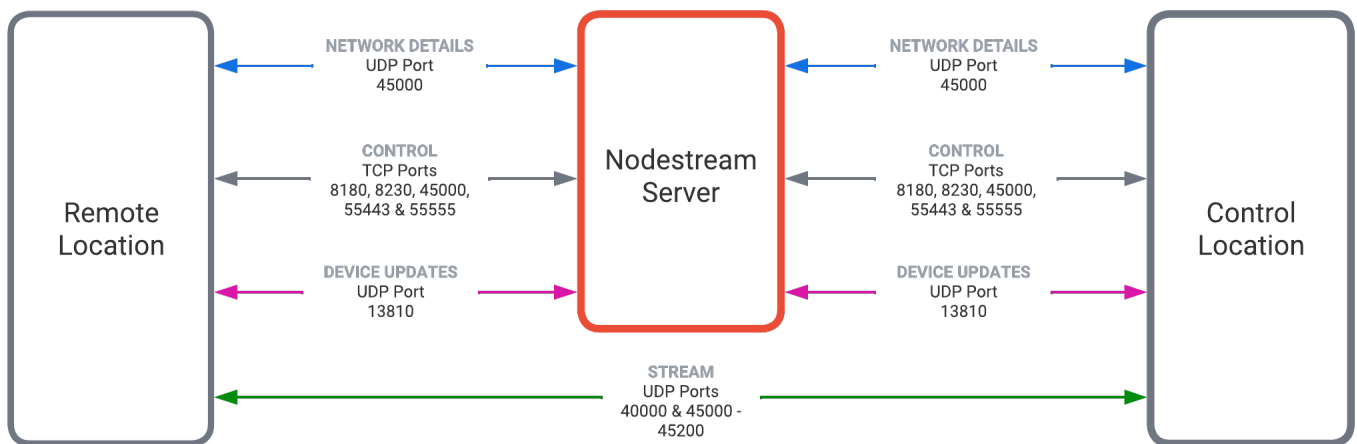
Visible Networks:

Disconnect

Firewall Settings

It is common for corporate network firewalls/gateways/anti-virus software to have strict rules in place that may require modification to allow Nodestream devices to function.

Nodestream devices communicate with each other via TCP/UDP ports, therefore permanent network rules must be in place as per below:

- Protocol is IPv4 ONLY
- Devices require either, access to Public network (Internet) for Harvest hosted servers, or Server IP for self hosted servers.
- Inbound/Outbound to Nodestream server:
  - TCP ports: 8180, 8230, 55443, 45000 & 55555
  - UDP ports: 13810 & 45000
- Devices must be able to send UDP packets between each other in the range of:
  - UDP ports: 40000 & 45000 - 45200

	NETWORK DETAILS UDP Port 45000	Nodestream Server	NETWORK DETAILS UDP Port 45000	
Remote Location	CONTROL TCP Ports 8180, 8230, 45000, 55443 & 55555		CONTROL TCP Ports 8180, 8230, 45000, 55443 & 55555	Control Location
	DEVICE UPDATES UDP Port 13810		DEVICE UPDATES UDP Port 13810	
		STREAM UDP Ports 40000 & 45000 - 45200		

- All traffic is protected with 384-bit encryption
- All port ranges are inclusive
- Contact Harvest support for further information. support@harvest-tech.com.au

System

This section of the Web Interface provides information for software, changing system video modes, Web Interface password management, factory reset, and remote support enable / disable.
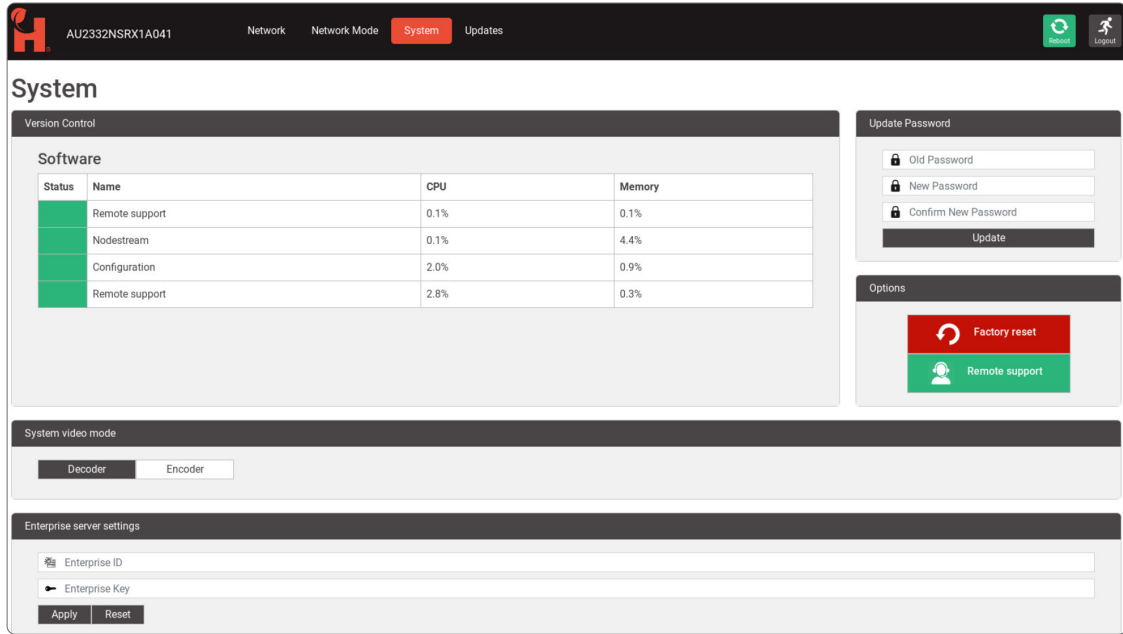
Version Control

Displays information relating to software processes and their resource usage. This can be useful in diagnosing software and/or performance issues.

System Video Mode

Nodestream video streaming devices can be configured to operate as either a decoder or an encoder.

To change video mode:

1. Select desired video mode.
2. Nodestream software will restart.
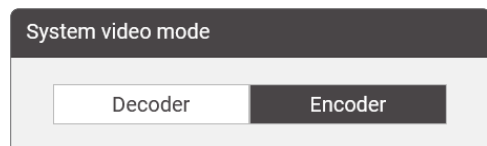
Enterprise Server Settings

Nodestream devices can be managed via the Harvest server or a dedicated "Enterprise Server". If your Nodestream device is managed by an Enterprise Server, you will need to input its details in this section. Contact your company Nodestream administrator for further information.

Update Password

Allows you to change the Web Interface login password. If the password is unknown, perform a factory reset. Refer "Factory Reset" below.

Options

Factory Reset

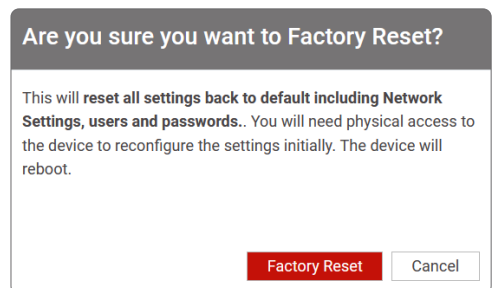Performing a factory reset of the device will reset:

- Network settings
- System video mode (encoder)
- Web Interface login password
- Enterprise server settings

To perform a factory reset:

1. Initiate (a, b or c):

    a. Press and hold the reset button on the front panel

Approximately 10 seconds

Press & hold Reset Button → Status LED 🔴 (Solid) → Status LED ⚪ (Off) → Release Reset button

    b. Select "Factory Reset" from the System page in the Web Interface. When prompted select "Factory Reset" to confirm.

    c. Press ctrl+alt+r on a connected keyboard. When prompted select "Yes" to confirm.

3. Device will reboot.

4. Configure the network or your device.
   Refer "Initial Configuration" on page 6.

Are you sure you want to Factory Reset?

This will **reset all settings back to default including Network Settings, users and passwords.**. You will need physical access to the device to reconfigure the settings initially. The device will reboot.
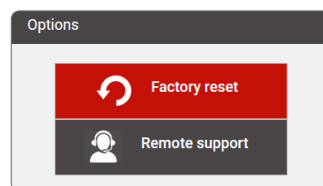
[Factory Reset] [Cancel]

Remote Support

Remote support enables Harvest support technicians to access your device if advanced troubleshooting is required.

To enable/disable remote support, click the "Remote Support" button.
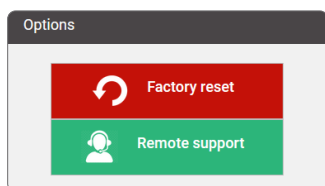
Enabled

Disabled

Remote support is enabled by default

Updates

This section of the Web Interface provides control and management of the device update system.
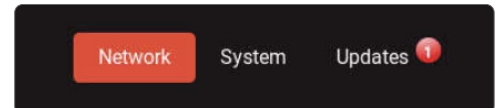
Automatic Updates

Automatic updates are enabled by default, downloading and installation occur in the background. During this process the device may restart. If this is not desired, disable automatic updates by setting "Update automatically?" to No.
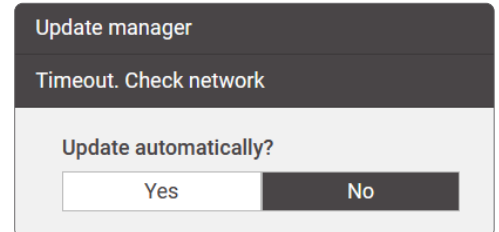
Manual Updates

When an update is available for your device, an icon will be displayed next to the "Updates" tab.

To Install the available update(s):

1. Open the Updates section of the Web Interface.
2. If an update is available it will be shown. If no update is visible, click the "refresh" button to display available updates.
3. Select "Update (permanent install)" and accept the conditions when prompted.
4. The updated manager will proceed to download and install the update.
5. Once the update process is complete your device or the software may restart.

Updates are installed incrementally. When a manual update has completed, continue to refresh the update manager and install updates until your device is up to date.

Operation

Overlay

When a monitor is plugged into your device and the system is in standby mode (not streaming video), an overlay displays system information. This allows the user to view current system status and assists with diagnosing system issues.
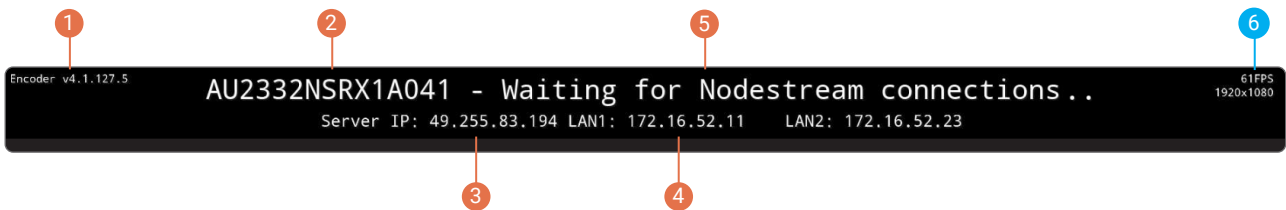
1 Video Mode / Software Version
Current video mode - encoder or decoder and Nodestream software version installed.

2 Device Serial
Serial number of device.

3 Server IP
IP address of your Nodestream server.

4 Network Status
Displays current status of network ports:

IP address shown	Network connected and configured.
down (unplugged)	Network not connected to device.
not configured	Network not configured - refer "Port Configuration" on page 8

5 Server Connection Status

Waiting for Nodestream connections	Connected to server, ready to connect to another device.
Connecting to Nodestream server	Connecting to server.
Server connection error	There is a network issue preventing connection to the server. Refer "Troubleshooting" on page 22

6 Frame Rate & Resolution (encoder mode only)
Frame rate and resolution of video that will be streamed to a decoder .
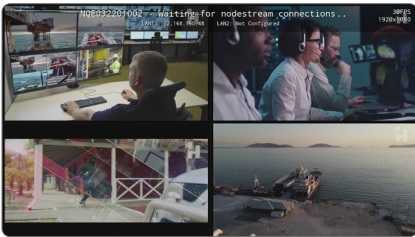
Video

Encoding

When your device is operating in encoder mode, inputs can be viewed by connecting a monitor. Inputs, as selected via a Harvest control application, will be displayed. This can be useful to diagnose issues with hardware and/or network stream video inputs.

> Displayed video is a direct reflection of what will be sent to a connected decoder. Changes to frame rate and resolution will be visible.

USB Input Sources

USB video/audio capture devices such as HDMI, SDI, or camera sources can be used as inputs for selection within the Harvest control application. For a detailed list supported input types refer "Technical Specifications" on page 21.

Typical encoder display, 4 x video sources selected and waiting for Nodestream connections
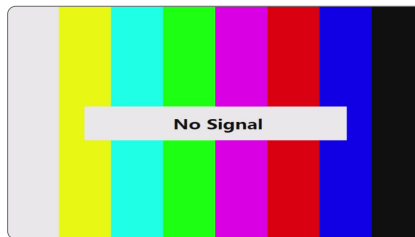
No video source connected to selected input
Refer "Troubleshooting" on page 22
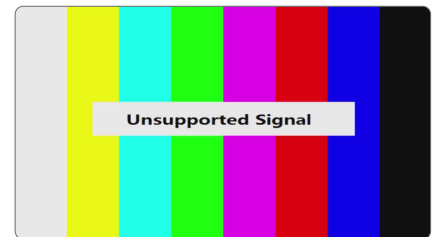
Video source not supported
Refer "Troubleshooting" on page 22

> Due to copyright restrictions, HDCP (High-bandwidth Digital Content Protection) signals such as DVD players and media streamers cannot be captured.

Pro Mode

Enable Pro Mode, via your Harvest Control Application, to activate the following features:

Video

Increase video streams to 4 x 1080p at 60 frames per second.

Frame Synchronous Data

UDP data input on port 40000 is streamed, frame synchronous, with the accompanying video. This can be output to up to 4 network devices from your connected Nodestream X Decoder.

> • Pro Mode can only be activated when hours are available on your account. To purchase hours, contact sales@harvest-tech.com.au.
> • When hours have been depleted, all Pro Mode enabled streams will fall back to 1080/60.

Network Stream Inputs

Network streams associated with a connected Nodestream encoder, such as those from IP cameras, can be decoded and used as inputs. Inputs are added and managed via the Harvest control application.

RTSP

Real-Time Streaming Protocol is typically used for streaming IP cameras. They are unique to camera manufacturers and can differ between models. The URI of the source must be known before it can be used as an input. If authentication is enabled on the source device, the user name and password must be known and included in the URI address.

URI	rtsp://[user]:[password]@[Host IP]:[RTSP Port]/stream
Example URI	rtsp://*admin:admin*@192.168.1.56:554/s0

RTP

Real-Time Transport Protocol (RTP) is a network protocol for delivering audio and video over IP networks. RTP typically runs over User Datagram Protocol (UDP). RTP differs from RTSP in that the RTP source needs to know the IP address of the receiver beforehand, as it pushes the video stream to that designated IP.

URI	rtp://[Receiver IP]:[RTP Port]
Example URI	rtp://192.168.1.56:5004

UDP

Video data can also be transmitted and received over plain UDP. It acts similarly to RTP where the video source will push data to the receiver, requiring in advance to know the destination before streaming can occur. Generally, it's preferable to use RTP instead of plain UDP if the user has the choice due to inbuilt mechanisms like jitter compensation in RTP.

URI	udp://[Receiver IP]:[UDP Port]
Example URI	udp://192.168.1.56:5004

HTTP

HTTP streaming comes in several formats; Direct HTTP, HLS, and HTTP DASH. Currently only Direct HTTP is supported by Nodestream but it is not recommended.

URI	http://[Host IP]:[Host Port]
Example URI	http://192.168.1.56:8080

Multicast

Multicast is a one-to-one or more connection between multiple decoders and the source. Connected routers must be multicast enabled. The range of IP addresses reserved for multicast is 224.0.0.0 - 239.255.255.255. Multicast streaming can be delivered via RTP or UDP.

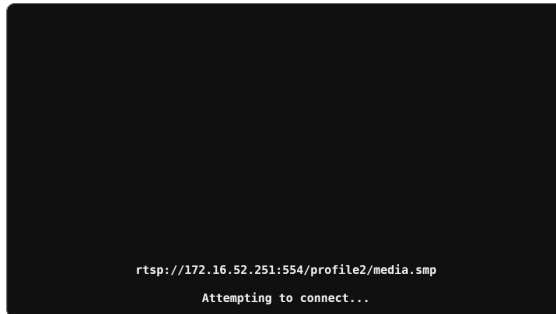|	
URI	udp://[Multicast IP]:[Port]
Example URI	udp://239.5.5.5:5000

> Use of software such as VLC from a PC connected to the network can be helpful when diagnosing and /or confirming network stream URL's.

On-screen Diagnostics

On screen diagnostic information for network streams is shown when a stream is selected as an input and no video is displayed.

Attempting to connect	Attempting to connect to stream URI shown.
7) Could not open resource for reading and writing	IP incorrect and/or device not configured or connected to stream network.
Connection to resource lost	Stream source or network disconnected (shown for 10 seconds). Will continually attempt to reconnect.
Not authorized to access resource	IP correct & incorrect URI, username and/or password

> 💡 Use the ping tool in the Web Interface to test connection to network streams. Refer "Testing" on page 7

> ⚠️ There may be network security measures in place that could block physical ports on connected network devices when a "suspicious" IP, MAC address or UDP flood is detected. In this case, set device to "combined mode" and utilise rear ports.

Test Sources

Various test sources are build into the device for use as an input to assist with troubleshooting or network testing. These can be selected via the Harvest control application.

Test Source	Test video loop with time stamp for latency reference
Test Pattern	Simple low bandwidth loop
Colour Bars	Colour bars with white noise section for testing colour and high bandwidth

> 💡 Direct cameras away from dynamic references where practical, i.e. water, trees. Reducing image pixel changes will decrease bandwidth requirements.

Decoding

When your device is operating in decoder mode, up to 4 video streams can be displayed on a connected monitor. Each stream can be individually displayed by changing what the connected encoder is sending via the Harvest Control Application.

When the system is idle, a screen saver will be displayed. Once a connection to a Nodestream encoder is established, video will be shown.

System idle

Active stream

A video wall device can be used to "split" the quad display output for display on 4 x individual monitors.
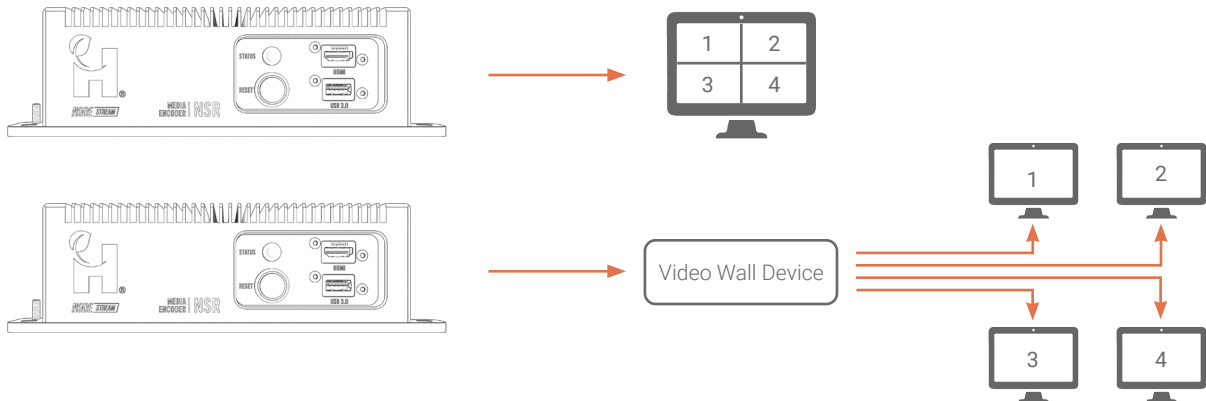
Audio

Nodestream video devices include a single Nodecom audio channel for streaming two-way audio to other Nodestream devices in the your group. The following audio devices are supported:

· USB speakerphone, headset or capture device via the USB A accessory port
· HDMI output

Audio devices are selected and configured via your Harvest control application.

Data

Up to 10 channels of serial, TCP or UDP data can be simultaneously streamed between Nodestream connected devices.

This versatile function enables:

- Transaction of telemetry/sensor data to/from remote sites.
- Control of remote systems .
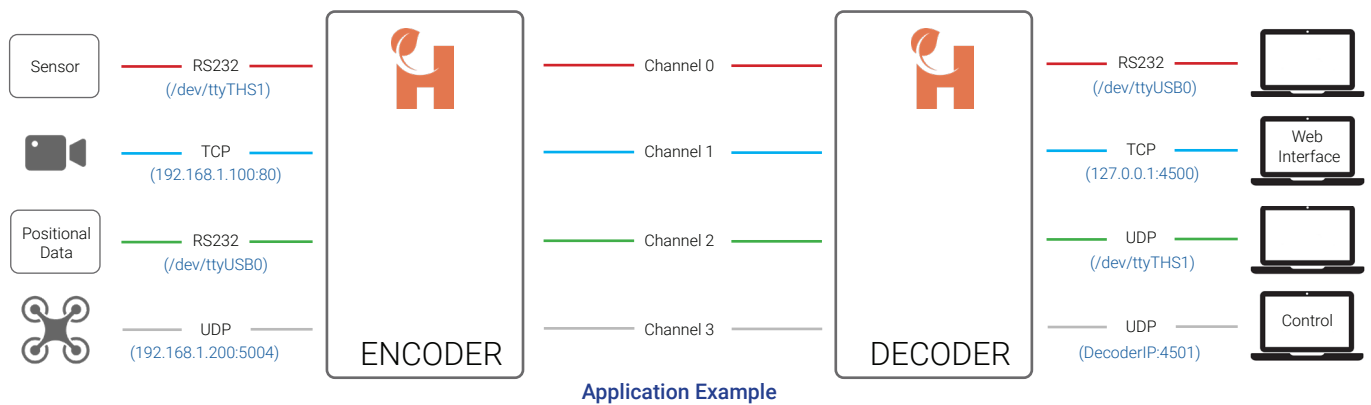- Ability to access remote device web interfaces, e.g. IP camera, IOT device.
- Pass data from your Nodestream Decoder to a 3rd party device and/or local network device.

Application Example

> - Data channels are connected and configured via your Harvest control application.
> - Streamed data should not be relied upon for critical control applications.
> - Data can also be streamed in Pro Mode, refer "Pro Mode" on page 16.

Control Applications

Nodestream device connections and associated input/output configurations are managed via Harvest control applications.

Nodester

A control only iOS application developed for iPad. Typically used in control applications or when a customers Nodestream group comprises only of hardware devices.

Nodestream for Windows

Windows Nodestream decoder, audio, and control application.

Nodestream for Android

Android Nodestream decoder, encoder, audio, and control application.

Nodestream for iOS

iOS Nodestream decoder, encoder, audio, and control application.

Appendix

Technical Specifications

Physical

Physical dimensions (HxWxD)	63 x 210 x 130 mm (2.48" x 8.27" x 5.12")
Weight	2kg (4.41lbs)

Power

Input	5 pin M12 A Coded male - 9 to 28VDC
Consumption (operating)	10W typical

Environment

Temperature	Operating: -20°C to 70°C (-4°F to 158°F)	Storage: -20°C to 65°C (-4°F to 149°F)
Humidity	Operating: 0% to 90% (non-condensing)	Storage: 0% to 95% (non-condensing)
Ingress Protection	IP 67	

Video

Input	USB
	• Uncompressed YUV 4:2:0
	• MJPEG
Output	HDMI
	• Max resolution 4096x2160 @ 30Hz

Network Streams

Supported Protocols	RTSP/RTP/HTTP/UDP (MPEG, H.264, H.265)

Other Interfaces

Ethernet	2 x 10/100/1000 - 8 pin M12 X coded female
WiFi	802.11ac 2.4GHz/5GHz (optional USB adapter)
Serial	RS232 - 5 pin M12 A coded male
USB	USB 3.0 type-A port
UI	Status LED
	Reset button

Included Accessories

Hardware	40w ACDC PSU
	IEC13 power cable (region specific)
	Ethernet cable - M12 X Coded male to RJ45 cable @1m
	Power cable - 5 pin M12 A Coded male to terminal @ 1m
	Serial cable - 5 pin M12 A Coded female to D9 @ 1m
Documentation	Quick start guide

Troubleshooting

System

Issue	Cause	Resolution
Device not powering	Power source not connected or powered	Confirm DC supply or PSU is connected to your device and the supply is turned on
Unable to access Web Interface	LAN port not configured	Connect to device locally and confirm network configuration correct
	Network issue	Refer "Network" troubleshooting below
	Device not powered	Confirm device is powered on
Device operating in incorrect mode	Device "video mode" not set	Set desired video mode in Web Interface Refer "System Video Mode" on page 12
Device overheating	Inadequate air flow	If ambient temperature is high, ensure active airflow across heat sink (refer quick start guide)
	Environmental conditions	Ensure specified operating conditions are met Refer "Technical Specifications" on page 21
Keyboard and/or mouse not responding	Faulty keyboard and mouse	Try another keyboard and mouse
	Not plugged in	Ensure device(s) or dongle correctly connected
Forgot login and/or network details	N/A	Factory reset device, refer "Factory Reset" on page 13

Network

Issue	Cause	Resolution
LAN(x) (unplugged) message displayed	Network not connected to LAN port	Check an Ethernet cable is connected
	Incorrect/inactive port on network switch	Confirm connected port is active and configured
"Server connection error" message displayed (No connection to server)	Network issue	Check an Ethernet cable is plugged into LAN 1
		Check WiFi adapter is plugged in and connected to correct WiFi network
	Port not configured	Confirm port configuration is correct Refer "Port Configuration" on page 8
	Firewall settings	Ensure firewall settings are implemented and correct. Refer "Firewall Settings" on page 11
Unable to open video stream input	Associated network not connected and/or configured	Confirm network connected and configured Refer "Port Configuration" on page 8
	Stream source not connected and/or powered	Confirm stream source connected and powered
	Stream URI incorrect	Confirm URI is correct Refer "Network Stream Inputs" on page 17
	Stream not enabled and/or configured on source device	Login to source interface and confirm stream is enabled and correctly configured

Video

Issue	Cause	Resolution
No output to monitor	Monitor not connected or powered	Ensure monitor(s) connected and powered Test monitor with an alternative input
Black screen displayed when USB source selected	USB device not supported	Confirm USB source meets specifications refer "Technical Specifications" on page 18 Test USB source with another device
Incorrect video source displayed	Input not selected in Harvest control application	Select the correct input source via your Harvest control application
Poor video quality	Poor input source quality	Test video source with another input device (monitor)
	Insufficient network bandwidth	Increase network bandwidth or only stream 1 input
	Input settings set low in Harvest control application	Check input configuration settings in your Harvest control application
	Network stream source settings low	Login to network stream source device and adjust output settings
	Lower quality stream sub profile selected not main	Ensure main profile stream is selected in stream URI
	USB source incompatibility or USB 2.0	Confirm USB source meets specifications refer "Technical Specifications" on page 18 Use USB 3.0 or greater device

Audio

Issue	Cause	Resolution
No audio input and/or output	Audio device not connected	Ensure audio device is connected and powered on
	Audio input/output not selected	Select correct input and/or output device in your Harvest control application
	Device muted	Confirm device is not muted
Output volume too low	Level set too low	Increase output volume at the connected device or via your Harvest control application
Input volume too low	Level set too low	Increase mic level at the connected device or via your Harvest control application
	Microphone obstructed or too far away	Ensure microphone is not obstructed Decrease distance to microphone
Poor audio quality	Poor cable connection	Check cable and connections
	Damaged device or cable	Replace device and/or cable
	Limited bandwidth	Increase available bandwidth and/or reduce bandwidth of video streams

User Resources

Contact and Support
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