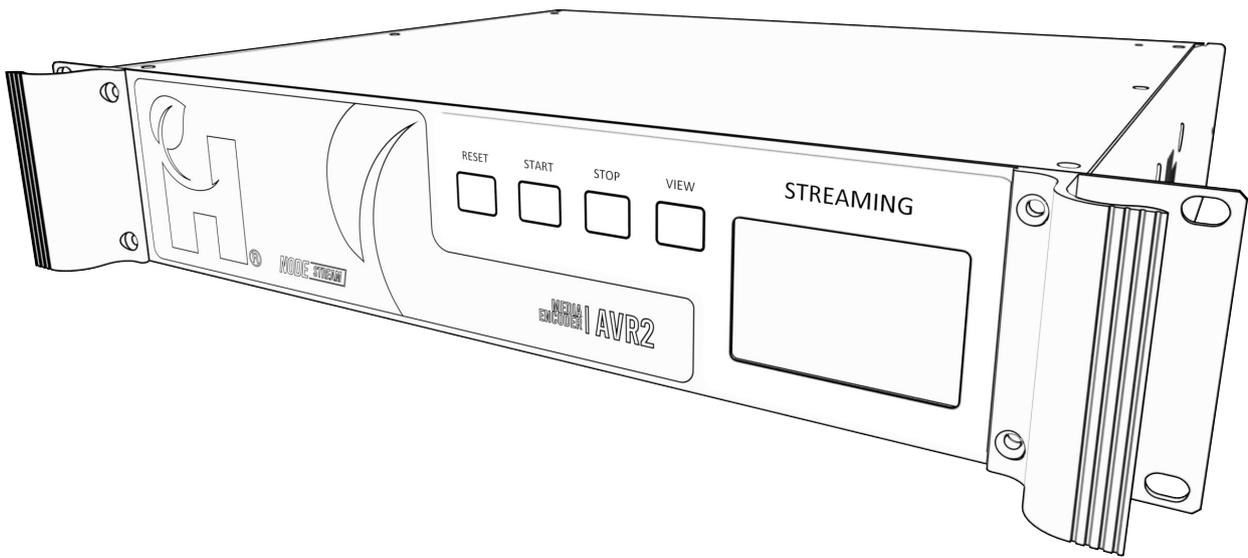# MEDIA ENCODER | AVR2

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.

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.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Operating environment temperature and humidity:
  Temperature: Operating: 0 °C to 35 °   Storage: -20 °C to 65 °C
  Humidity (Non-condensing): Operating: 0% to 90%   Storage: 0% to 95%
- Unplug this product 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

⚠️ 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

Disclaimer and Copyright

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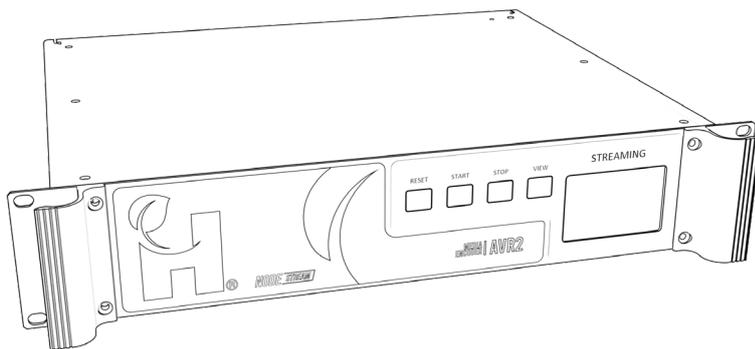
Warning: Operation of this equipment is not intended for a residential environment and could cause radio interference.

Table of Contents

Overview

The AVR2 provides a multi-cast streaming solution enabling high quality video and serial data transfers from remote locations to any web enabled device (via AVR Live) without the need for a decoder.

Feature Summary

- HD video and serial data over low-quality satellite networks

- Customer controlled website functionality and self-managed user access

- Plug and play design

Multi-cast streaming solution

| Video Source | AVR2 | Cloud | Devices |

Interface

RESET   system
START   streaming video and/or data
STOP   streaming video and/or data
VIEW   preview screen (display)
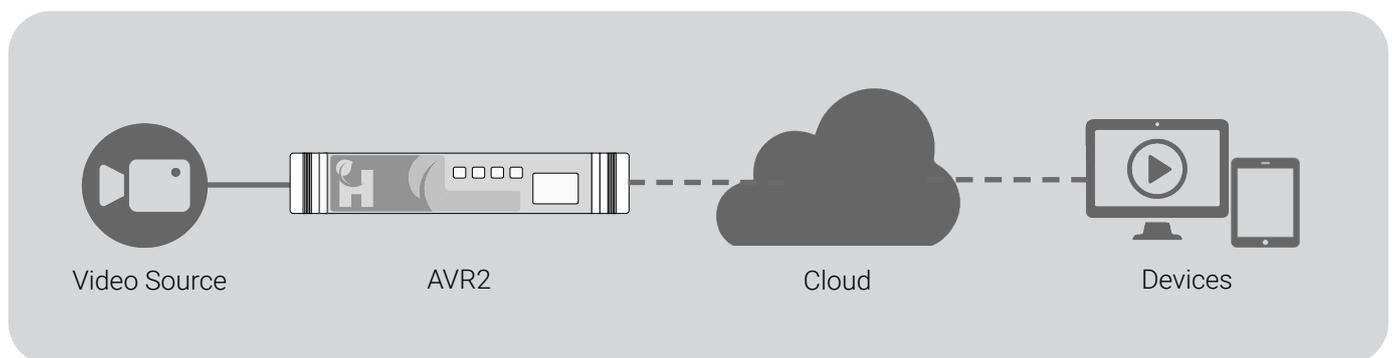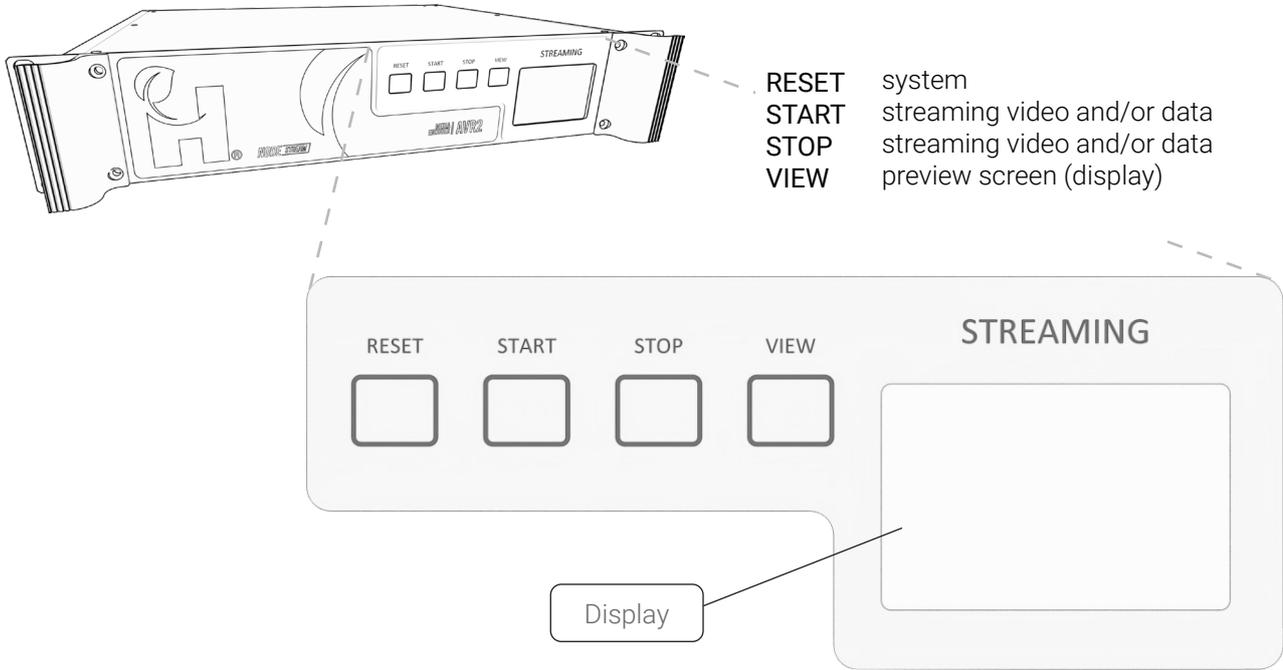
STREAMING LED Status

	Condition	Status
STREAMING	Off	Un-powered
	Cycling All Colours	System start up
	Solid Red	Network connection error
	Solid Blue	System idle - ready to stream
	Flashing Green	Stream starting
	Solid Green	System online and streaming
	Flashing Red	Stream stopping

The display automatically turns off after 5 minutes and the stream remains active. Press View to turn the display back on

Rear Panel

Power switch

Power port

Connections

Ethernet

Serial data

Analog, HDMI or SDI input

Power
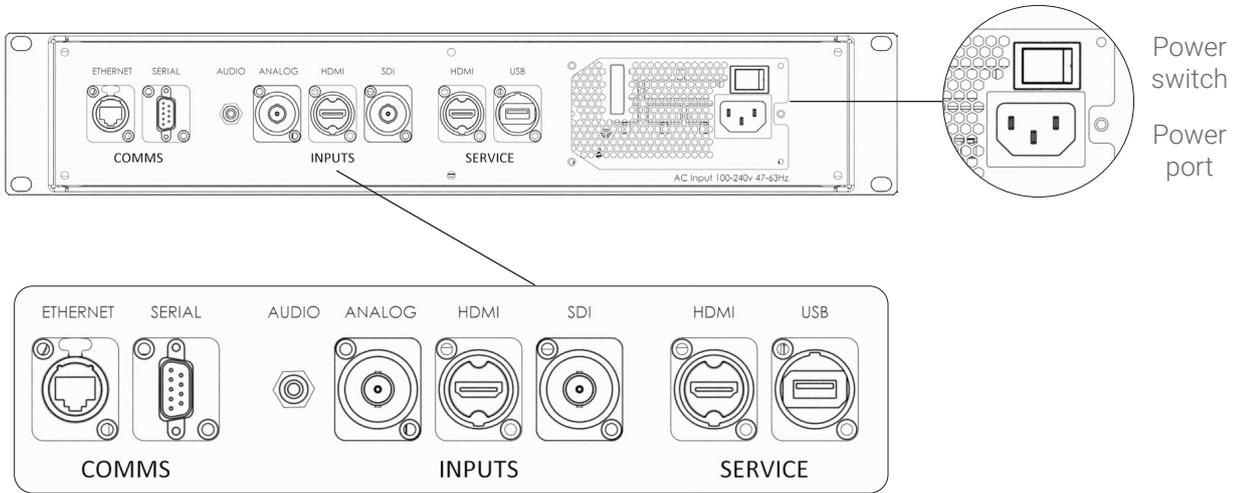
⚠️ IMPORTANT: 100-240VAC 47/63HZ only (UPS Recommended)

📄 The AVR2 is supplied with a Quick Start Guide for installation. See the User Resources on the last page for access

Network Configuration

Network configuration is set to DHCP by default
- An open Internet connection is required

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 Harvest devices to function.
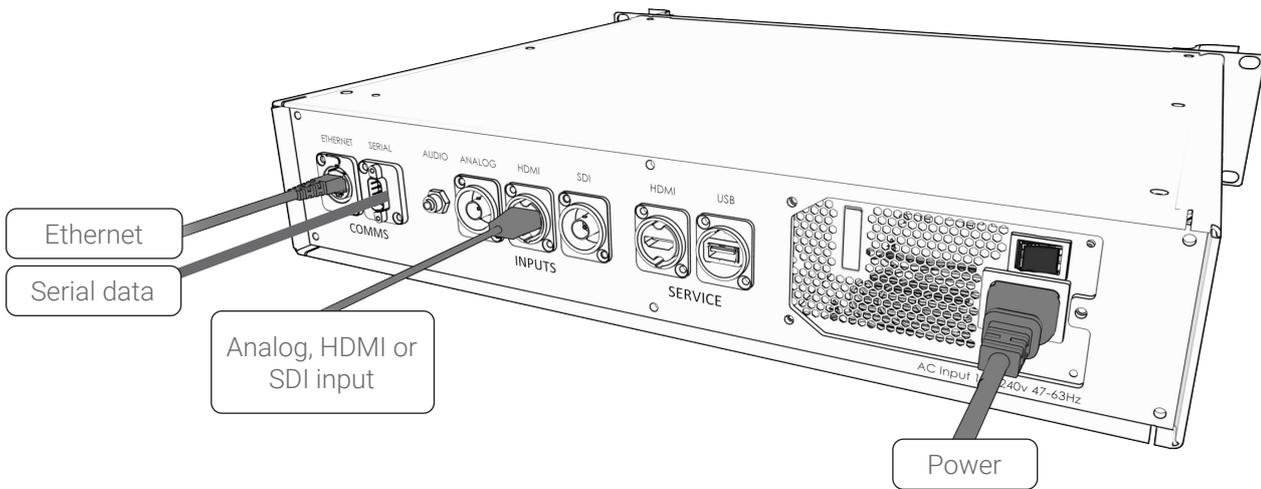
Harvest AVR2 devices communicate via UDP ports, therefore permanent network rules must be in place as per below.

- Protocol is IPv4 ONLY
- Devices must have access to the public network (Internet)
- Inbound/Outbound to Harvest Server:
  - UDP port: 8180, 8500
- Devices must be able to send UDP packets between itself and the server in the range of:
  - UDP port: 9001 - 12000
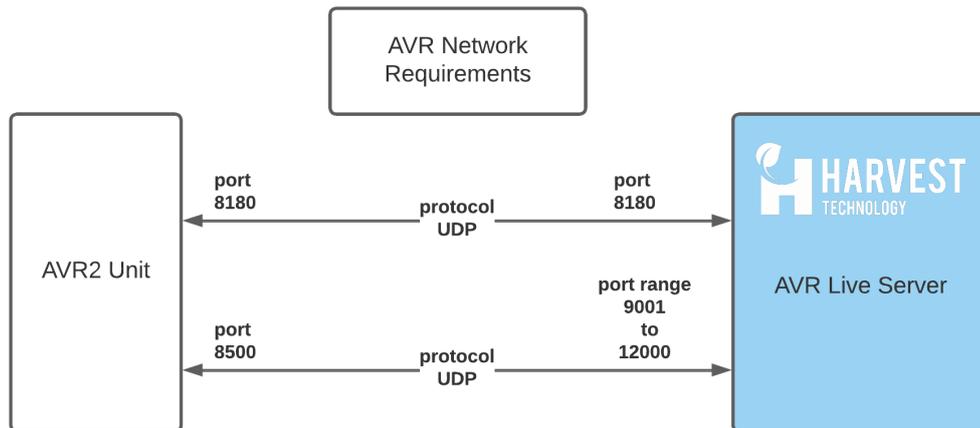
1. Connect an external monitor and keyboard/mouse to the **Service** ports
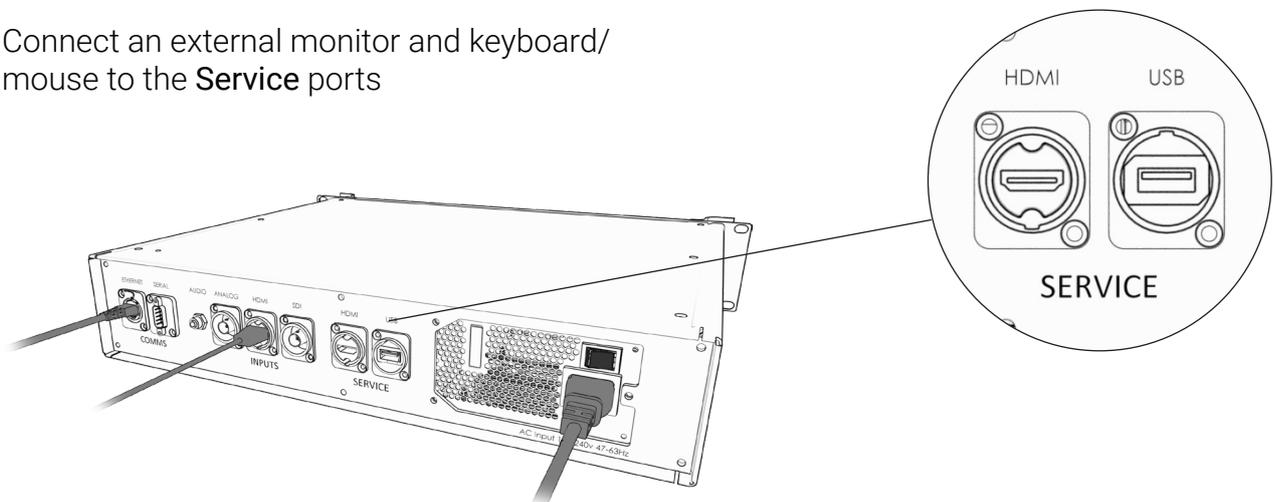
2 Confirm the Ethernet connection is available
Network icon will be displayed, if not see "Troubleshooting" on page 23

3 Left click the
Ethernet icon

◀) ———————————○

⊹ Wired Connected　　　　　　▶
▽ Wi-Fi Off　　　　　　　　　▶
⊠ On　　　　　　　　　　　　▶

⚙ Settings
🔒 Lock
⏻ Power Off / Log Out　　　　　▶
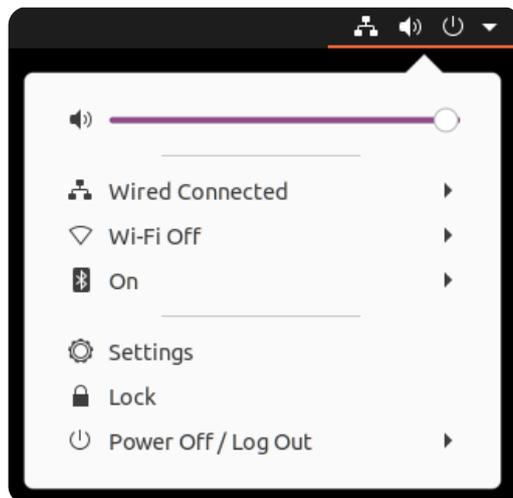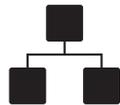
4 Select **Wired Settings** from the
Wired Connected drop down

◀) ———————————○

⊹ Wired Connected　　　　　　▼
　　Turn Off
　　Wired Settings
▽ Wi-Fi Off　　　　　　　　　▶
⊠ On　　　　　　　　　　　　▶

⚙ Settings
🔒 Lock
⏻ Power Off / Log Out　　　　　▶
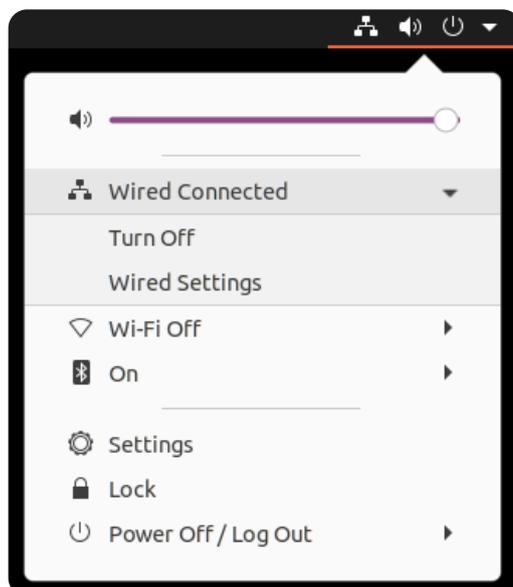
5 Under **Wired** select the settings icon

Settings icon
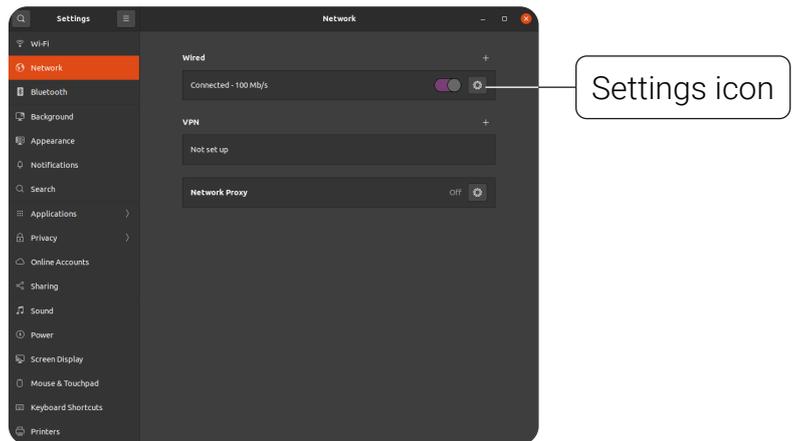
6 Select **IPv4**
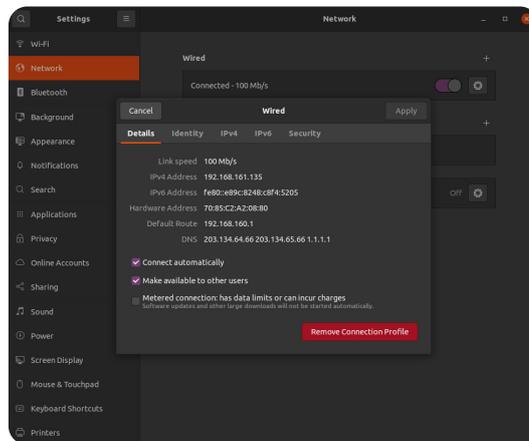
7 Enter details as provided by your Network Administrator
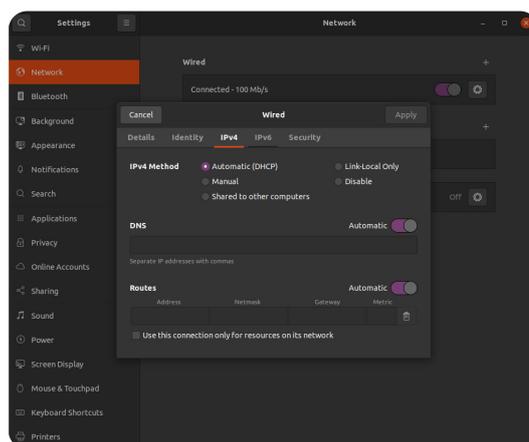
Ethernet connections MUST be reset for settings to take effect by
- Disconnecting and reconnecting the Ethernet cable
- Cycling the connection off then on in network settings
- Power cycling the device

AVR Live

The AVR Live web portal provides access to view the video and data streaming from one or more devices.

An administrator account is allocated to create and manage presentations consisting of one or more video and data streams, and assign access to viewers.

> ℹ️ **Web Server Access**
>
> AVR2 Dashboard access: http://avrlive.com/

Administrator Interface

Functions

- **Home**
  - Customise company page
  - Create a new presentation
  - Request a new stream server
  - Support

- **Presentations**
  - View and configure video and data streams from one or more devices

- **Video Streams**
  - Manage video stream bandwidth

- **Data Streams**
  - Manage data stream settings

Viewer Interface

Viewers have access to presentations only

Viewer receives an
email with link

Select the presentation tile to view the video stream

Presentations with video streams for desktop, tablet and
mobile
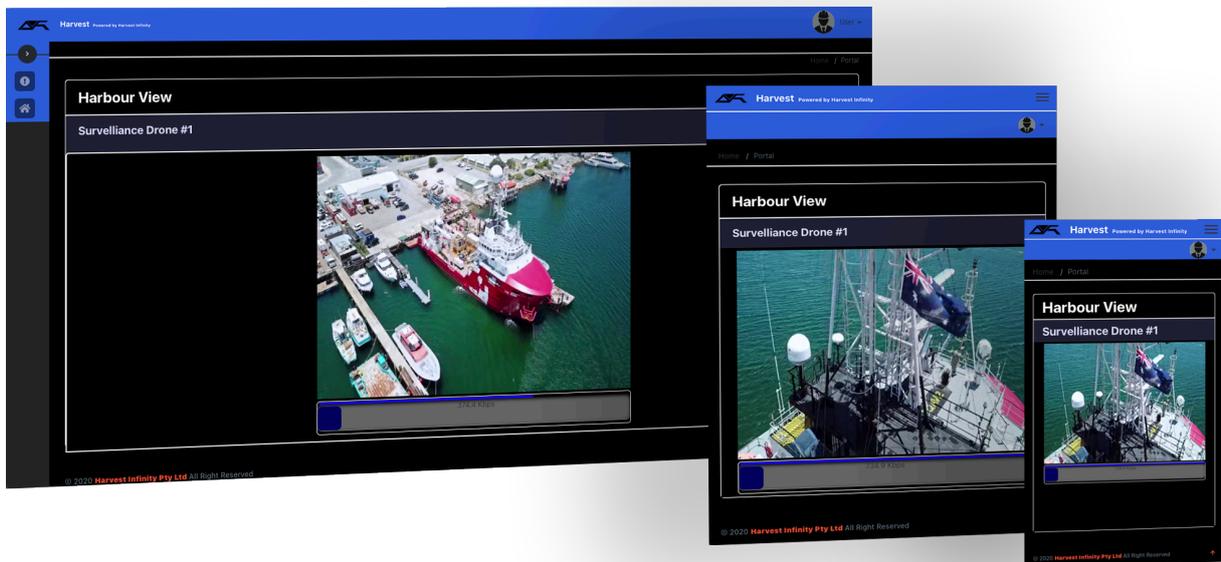
See "Viewer Access" on page 21 for further information

Customizing Company Page

Customize the client's company page with logo, brand colours and background.

1   Select Customise company page

Customise company page

Create colors and styles
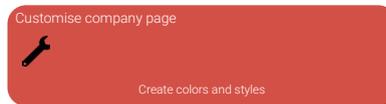
2   Edit the following if desired
- Home page title
- Title bar colour
- Title text colour
- Background colour

Change title or leave as company name

Title Bar Color Picker

#2c5bdb

Title Text Color Picker

#ffffff

Clear Logo

Page Background Color Picker

#000000

No image   Default image

Cancel   Save

3   Upload logo "tile image"

Choose Title image. PNG images with around 10:1 W:H ratio with transparent backgrounds look best

Choose file
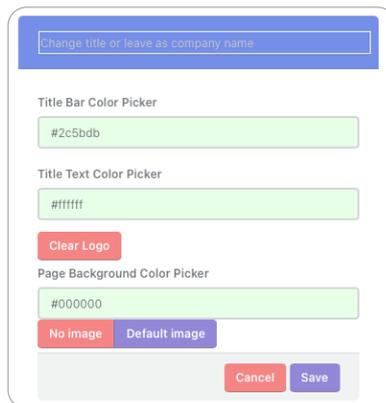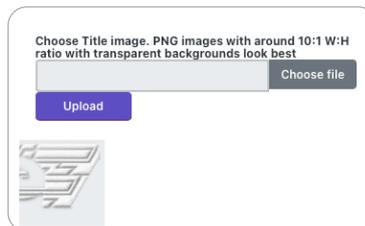
Upload

4   Upload background image

Choose Background image. JPG or PNG images around 1920 x 1080 are needed for quality backgrounds

Choose file

Upload

5   Select   **Save**
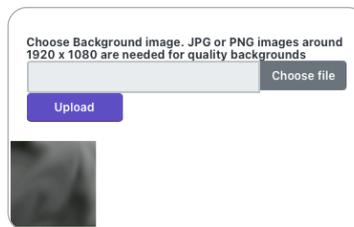
Creating Presentations

Create and customise a presentation for sharing video and data streams

1 From the home page, select create new presentation

Create a new presentation

Create a presentation
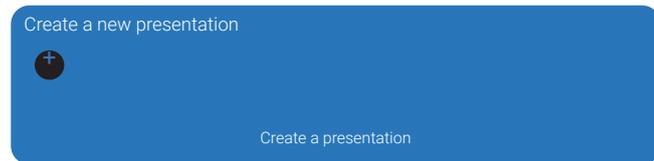
2 Enter presentation title and subtitle details

3 Customise colour scheme

4 Add logo's if required

5 Finalise/create presentation

6 The presentation is now available from the home page
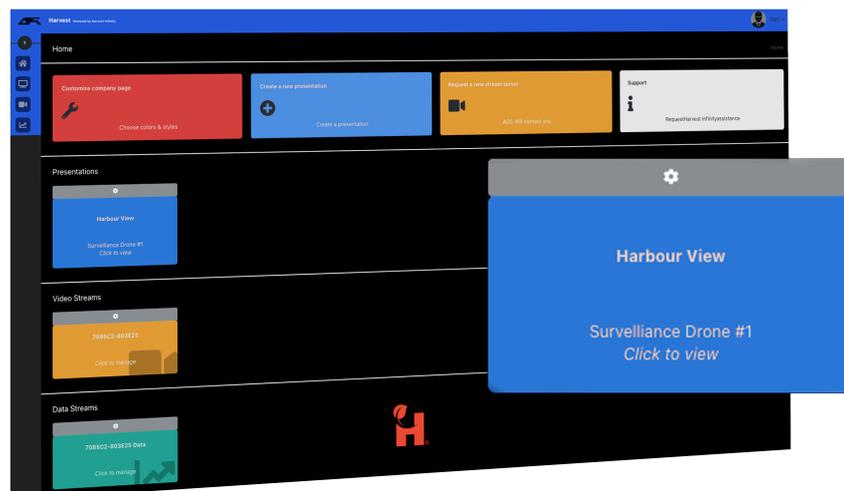
Presentation Configuration

1 Select the icon on the presentation ⚙

Presentations

| Harbour View | West Tower View | Southern Bridge View |

Survelliance Drone #1
Click to view

Security Camera #5
Click to view

Survelliance Drone #3
Click to view

2 Enable/disable the Presentation or edit Titles

Home

Editing : Harbour View

Duplicate   Delete   Save

⚙ Presentation enabled

| Title |
| Harbour View |

| Subtitle |
| Survelliance Drone #1 |

3 Allocate up to 4 video and/or data streams to the presentation then select **Assign**

Clear allocated streams by selecting **Clear**

Video / data combination

Slot 0
- ✓ none
- 7085C2-803E25 - Video
- 7085C2-803E25 Test - Data

Slot 1
none

Slot 2
none

Slot 3
none

Clear   Assign
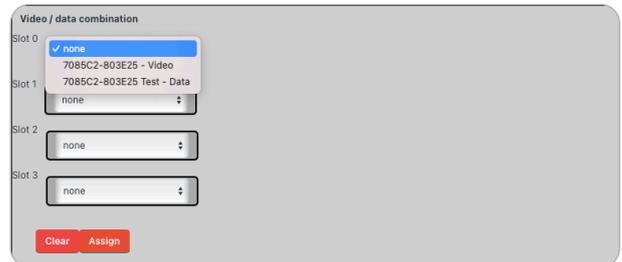
4 Manage assigned viewers
- View and revoke current users
- Invite additional users

Name	Email	Revoke
First Last		Revoke

➕ Invite viewers

Type an email to invite a viewer

Invite
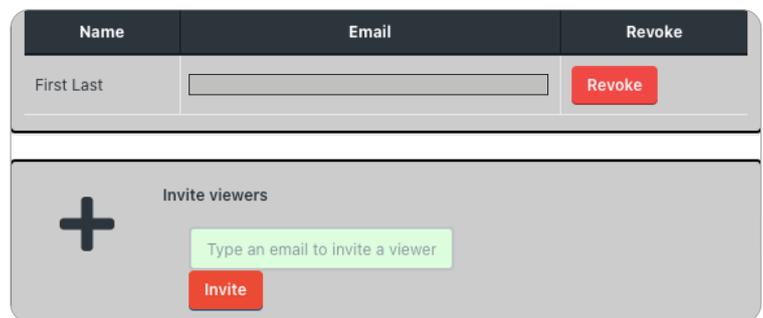
📄 If there is no Video or Data stream to select from any of the slots, or a specific stream cannot be found, see "Request a New Stream Server" on page 20.

View Presentation

(1) Select a presentation by clicking on the coloured area of the tile
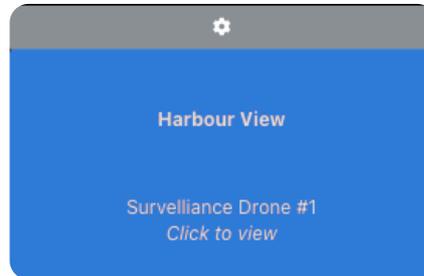
(2) The presentation displays

💡 Double-click or double-tap the video stream to enter full screen.

(3) Use the slider to increase or decrease bandwidth

Decrease ⟵⟶ Increase
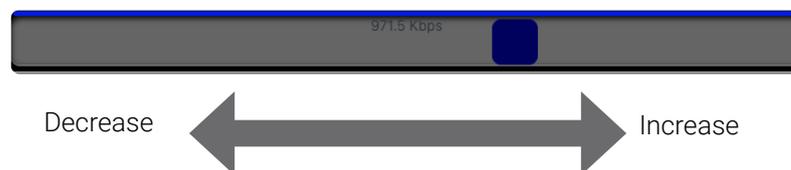
📄 The maximum allowable bandwidth is configured within the settings of the video stream. See "Video Stream Configuration" on page 18.

4 Scroll down to view the data stream
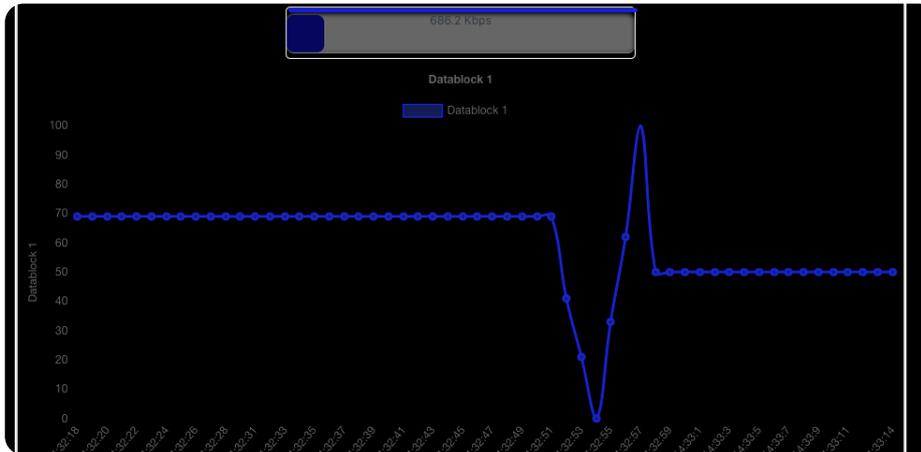
A flat line would indicate an issue with the data configuration and/or connection. Alternate graph types can be set, see "Data Stream Configuration" on page 19.

Video Stream Configuration

① Select ⚙ from a video stream tile
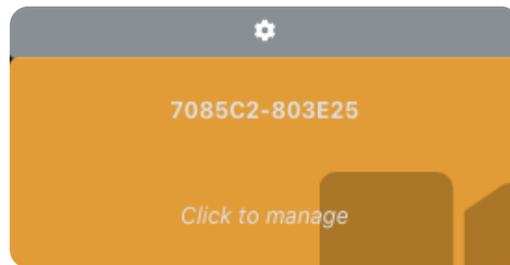
② The following can be configured
  - Bandwidth allocation
  - Force start
  - Remove presentation links
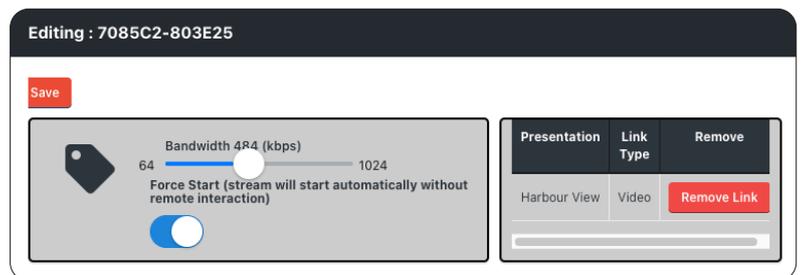
③ Select **Save** to apply settings

Administrator access only.

Data Stream Configuration

(1) Select ⚙ from a data stream tile
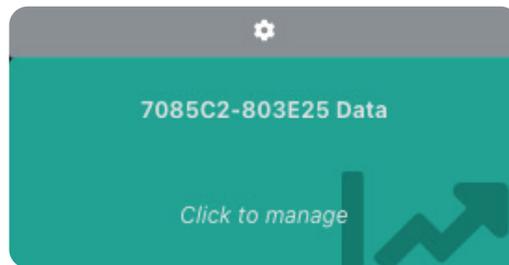
(2) The following must be configured to suit the serial input
- Baud rate
- Data termination
- Data delimiter

Assign the serial fields to slots, name and select graph type

📄 Administrator access only.

Request a New Stream Server

If additional AVR2 streams are required, customers can send a request to the Harvest sales teams from the home page.

1 Select **Request a new stream server** from the home page

> Request a new stream server
> 🎥
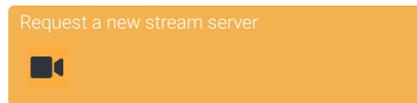
2 Fill in the form and **Click send your request**

> **Stream requirement**
> Please add some information to help us with your request.
>
> **Select estimate required start**
> 12/03/2021   📅
>
> **Number Of units Required**
> 3
>
> AOS responds within 24 hours for now requests. Your personal name and email will be sent toHarvest Infinityalong with your message.
>
> As discussed set up the three new drones.
> Cheers
> Gaz
>
> **Back**

3 Your request is sent, a sales team member will contact you shortly

Viewer Access

(1) Administrator invites viewer to presentation. Viewer receives an email with link, and login credentials

AVRLIVE.com Automatic Email

Harvest Invites you to view their live presentation

Sent on Wed Dec 01 2021 18:28:08 GMT+1100 (Australian Eastern Daylight Time)

You have been invited to join Harvest Infinity and view a new presentation from Harvest

Contact gary.centrone@harvestinfinity.com Gary Centrone 0407192003

Username = gary.centrone@iinet.net.au

Password = 32371666

Visit now

Advance Offshore Streaming Automatic Email

(2) Viewer has access to one or more presentations

Harbour View

Surveillance Drone #1
Click to view

(3) Agree to terms and conditions to proceed

You have agreed to our Terms and conditions.

Close
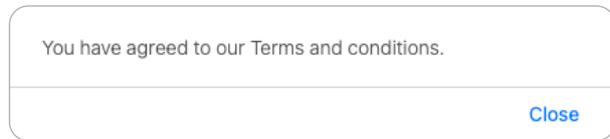
(4) The presentation displays
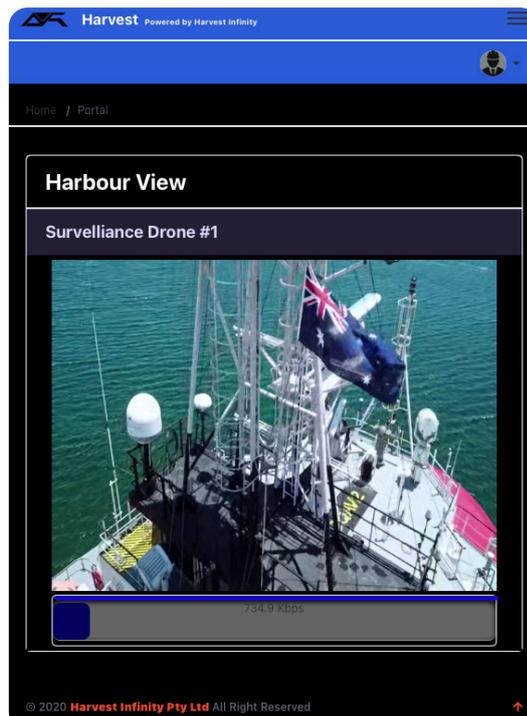
Appendix

Technical Specifications

Hardware

Physical dimensions	482 (W) x 88 (H) x 365 (D) mm
Weight	5.4 kg
Power	Power Supply: 100-240VAC, 47-63Hz
	Power Consumption (operating): 50W
	Power Consumption (idle): 25W

Environmental

Temperature	Operating:	0 °C to 35 °C
	Storage:	-20 °C to 65 °C
Humidity	Operating:	0% to 90% (Non-condensing)
	Storage:	0% to 95% (Non-condensing)

Video

Input	HDMI 1.4a
	Input resolution up to 2048X1080 @ 60fps
	RGB 4:4:4:, YCbCr 4:4:4:, YCbCr 4:4:2 colour sampling
	8/10/12-bit colour depths
	SDI - SD | HD | 3G
	Input resolution up to 2048X1080 @ 60fps
	RGB 4:4:4:, YCbCr 4:4:4:, YCbCr 4:4:2 colour sampling
	10/12-bit color depths
	Analog - Composite
	NTSC, PAL, SECAM
Service	HDMI 1.4a
	USB-A

Other

Ethernet	1x 1Gbps Ethernet
Serial	1 x 9-pin D male, RS-232
Audio	Mic 3.5mm (not used)

Accessories (included)

Cables	1 x IEC13 power cable (region specific)
	1 x 2m HDMI cable
	1 x 2m Ethernet cable
Adapters	1 x D9 null modem
	1 x D9 serial gender changer
Documentation	Quick start guide

Troubleshooting

System

Issue	Cause	Resolution
Device not powering	PSU switch in off position AC not connected	Confirm AC connected and switch is in the on position
Device overheating	Blocked vents Environmental conditions	Ensure device ventilation is not blocked (refer quick start guide) Ensure device is located in an environment where specified operating conditions are not exceeded
Keyboard and/or mouse not responding	Faulty keyboard and mouse Not plugged in	Try another keyboard and mouse Ensure device(s) or dongle correctly connected
Front LCD not operating	LCD has timed out	Press the "view" button (the LCD will turn off after 5 minutes)
No data stream shown in presentation	Parameters incorrect Data stream not assigned to slot	Check input parameters match that of the serial input in AVRLive (see "Data Stream Configuration" on page 19) Assign data stream to slot (see "Data Stream Configuration" on page 19)
Stream starts after it is stopped	Stream set to force start	Contact assigned administrator to disable force start function

Network

Issue	Cause	Resolution
Red STREAMING LED (no network)	Network issue Firewall settings	Check the Ethernet cable is plugged in Confirm correct network settings with your Network Administrator Ensure firewall settings are implemented, (see "Network Configuration" on page 8)

Video

Issue	Cause	Resolution
"No Signal" displayed	Source(s) not connected or powered on	Confirm video source(s) connected and powered.
	Damaged cable	Test source with another display
"Unsupported signal" or "Out of sync" displayed	Poor cable connection	Check cable connections
	Damaged cable	Replace cable
	Input signal not supported	Check input signal type is supported (see "Technical Specifications" on page 23)
	Input held on previous signal	Power cycle AVR2
Poor video quality	Poor input source quality	Test video source with an alternative display
	Input settings set low in AVR Live	Check stream settings on AVR Live (see "Video Stream Configuration" on page 18)
SDI or Analog inputs not showing	Incorrect port used	Both SDI and Analog inputs use BNC connections, ensure correct ports are used

AVR Live

Issue	Cause	Resolution
Video stream not displayed in presentation	AVR2 not powered or has network error	Confirm AVR2 is powered and STREAMING LED is green
	Stream not started	Press Start on AVR2 or enable Force start in device settings (see Video Stream Configuration on page 18)
	Incorrect device assigned	Confirm correct AVR2 device is assigned to presentation (see "Presentation Configuration" on page 15)
No data stream shown in presentation	Parameters incorrect	Check input parameters match that of the serial input in AVRLive (see Data Stream Configuration on page 19)
	Data stream not assigned to slot	Assign data stream to slot (see "Data Stream Configuration" on page 19)
Viewer unable to access presentation	Presentation disabled	Confirm presentation enabled (see "Presentation Configuration" on page 15)
	Viewer not assigned	Confirm viewer is assigned to stream and email is correct (see "Presentation Configuration" on page 15)

User Resources

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