

# vSolution MATRIX: Networked AV solutions for active learning classrooms & training rooms



# Flexible active learning with Cynap & Cynap Core Pro

vSolution MATRIX is an AV over IP collaboration solution which uses multiple Cynap / Cynap Core Pro devices to stream video and audio between multiple screens using network infrastructure.

A single feature pack enabled Cynap unit, designated as the 'main' system in the room, is connected to multiple workstations with either a Cynap or a Cynap Core Pro system installed, creating a system suitable for active learning classrooms, training rooms, and courtrooms of all sizes, and for other applications where multiple display screens are deployed to leverage collaborative learning and working.



Just like in the human brain where synapses are essential for quick processing and transmission of information, Cynap and Cynap Core Pro are unique, powerful, and flexible systems, providing instant access to information of all types from any source.



“

“We decided to use vSolution MATRIX because of its flexibility and ease of use. We found that the mirroring capability of other solutions was not as good, and that was a key component for us. The attention to detail that WolfVision have put in gave us a lot of confidence in the product. This room effectively gives us 16 breakout rooms and a lecture theatre all in one space!”

*Wayne Buttigieg*

*Head of Infrastructure and Media Services  
London Business School*



++ Video ++

London  
Business  
School

# Networked AV-based solution using Cynap & Cynap Core Pro

Stream video & audio between multiple screens using network infrastructure

Ideal for classrooms, training rooms, collaboration spaces, courtrooms etc.

Simple drag & drop interface with flexible setup & control options

No additional encoding/decoding hardware required – scalable, cost effective solution

# Configuration example

HDMI

USB

Cynap

Cat6 LAN



Cat6 LAN

1GB Ethernet Switch IGMP v.2

Cat6 LAN

HDMI

USB

Cynap Core Pro



# Flexible working & learning

## Simple drag & drop of multiple screens



A simple drag and drop user control interface enables content to be moved effortlessly between different screens. The 'Room View' is used to control pushing and pulling of content between displays, and flexible settings enable up to 40 workstations to be configured using either names, numbers or colours, exactly matching the actual layout of individual learning spaces.

## Multi-functional workspaces



Individual and multiple workstations can operate independently of the main central station, enabling room usage to be maximised. Workstations can be used separately for breakout groups, or for small groups working independently during times when the entire room is not being used. If enabled, Groupwork Mode also enables direct station-to-station streaming of content.

## Reduced hardware, complexity & costs

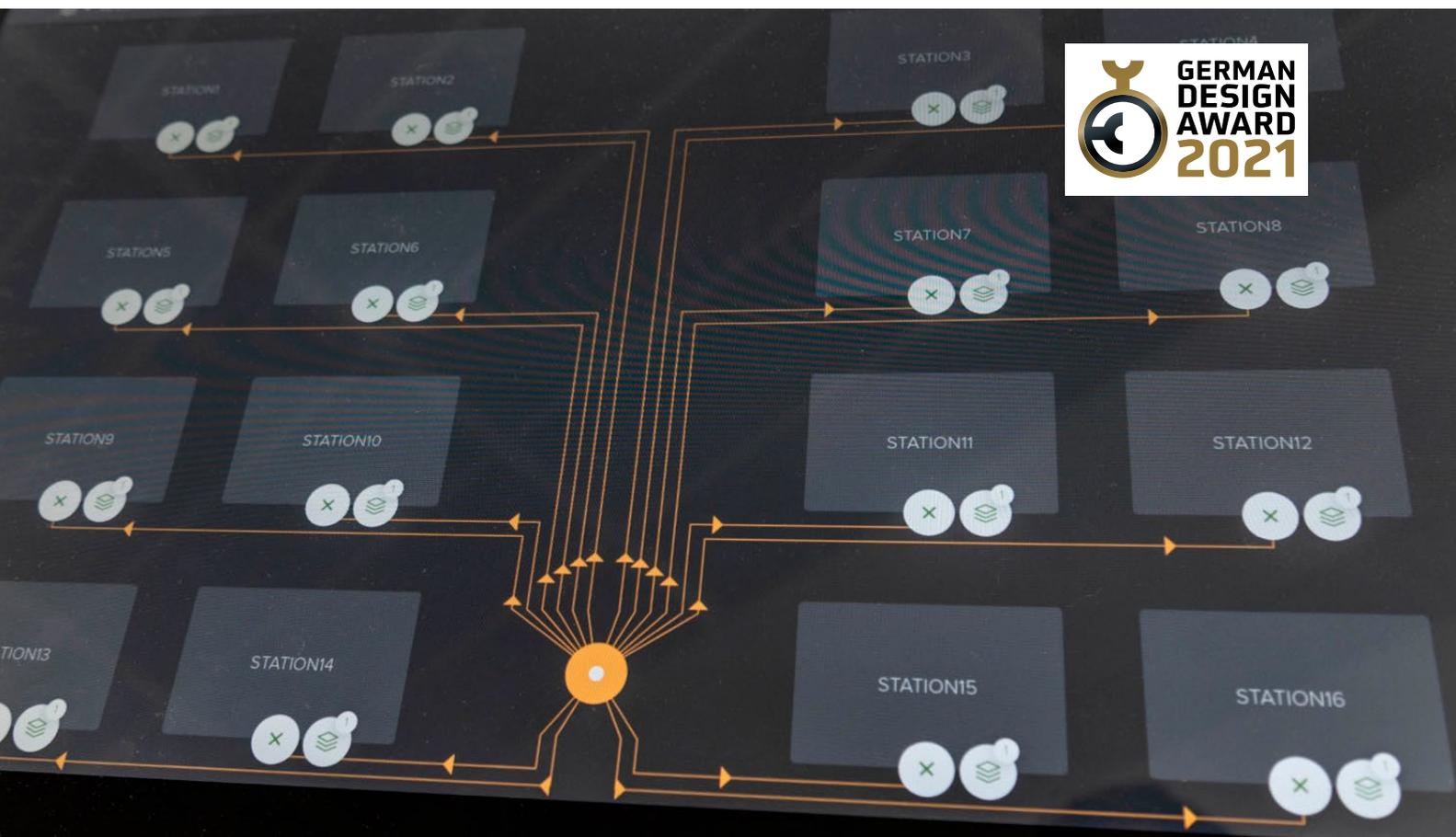


When streaming content between multiple screens, all processing is performed by the Cynap and Cynap Core Pro systems, eliminating the need for additional encoding/decoding hardware, and helping to reduce the overall complexity of the installed system.

## Connecting stations using Coaching Mode



Coaching Mode enables a teacher or trainer to connect two separate stations directly without sharing content onto the main display screen in the room. All content including any annotations etc. are displayed on both the connected screens.



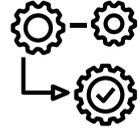
# System advantages

## Multiple room layout templates



For installations using multiple room layouts, up to 5 Room View templates can be configured and stored for use when required. Up to 5 pre-defined groups can also be set up to suit environments where content needs to be pushed to specific groups of display screens.

## Easy remote administration



Multiple Cynap/Cynap Core Pro components of the vSolution MATRIX system are easily set up, managed and updated remotely using our free-of-charge vSolution Link Pro software.

## App-free, dongle-free working & learning



Competitor solutions require the use of apps, dongles, and additional software. Only WolfVision offers a true app-free, dongle-free, hassle-free learning environment, providing a consistent user experience for all participants.

## Professional advice, proven technology!



With 250+ successful vSolution MATRIX active learning classroom installations already, you can be confident in receiving expert advice, service, and support for your chosen solution from our experienced, professional, worldwide team.

## Free firmware updates, no hidden costs!



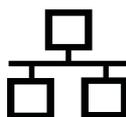
When installing up to 40 workstations, it's a key benefit that WolfVision does not charge subscription fees or apply per workstation recurring licensing costs. All firmware updates are free of charge, maximising your ROI and helping to futureproof your system.

## Files at your fingertips



We know that no two learning spaces are ever the same - and that's why our MATRIX solution lets you fetch your files from cloud, network, USB or other sources, and share them with the workstations easily - for maximum flexibility in the classroom!

## Implementation advantages!



The ability to configure three separate networks (ie. BYOD WiFi, control and admin, and internet service) offers significant advantages when planning your classroom or training room setup.

## Enterprise level security



Built on a secure, unmodifiable Linux platform with 100% data encryption, and user-configurable security features, enables vSolution MATRIX to satisfy the security requirements of every organisation.



# Cynap Core Pro: Workstation essentials for active learning

Cynap Core Pro provides the core essential features you need for effective collaboration, and wireless presentation. Installed on each workstation (higher spec Cynap systems can also be used) this key component of our vSolution MATRIX active learning classroom collaboration solution ensures an outstanding wireless working environment for all students.



## App-free, dongle-free screen sharing!



Connect and share your screen using the wireless technology that's built into your own mobile device. Our wireless BYOD solution suits all iOS, iPadOS, Android, Chrome OS, Windows and Mac devices - with full support for AirPlay, Chromecast, and Miracast screen mirroring.

## Access to Zoom and Teams meetings!



Support for Zoom, Microsoft Teams and WebRTC video meetings means it's possible to start an instant meeting or join a scheduled Zoom meeting directly from within both Cynap and Cynap Core Pro.



## Capture your big ideas!



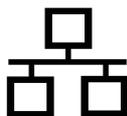
It's easy to create extra content material using our built-in digital whiteboard and annotation features, and multiple users can annotate on-screen at the same time if required.

## Display & share your files easily



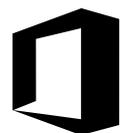
Share your data on-screen easily from cloud, network drives or mobile devices – even your laptop is no longer essential – just bring your content on a USB stick, or download it directly from the cloud!

## Implementation advantages



The ability to configure three separate networks (ie. BYOD WiFi, control and admin, and internet service, offers significant advantages when planning your working and learning environments.

## Microsoft Office 365 interface



Access popular Microsoft 365 apps directly from Cynap Core Pro including Microsoft Teams (active Microsoft 365 account required). Files are easy to open, work on collaboratively, and share with teammates.

# Cynap systems specifications

Features	Cynap ("Main Station")	Cynap Core Pro
Operating system	Linux	Linux
Output resolution	Up to 4K UHD: 2160p60 (4.2.0), 2160p30 (4.4.4), 1080p60 (4.4.4), 1080p30 (4.4.4), 720p60 (4.4.4)	2160p30, 1080p60/30 (4.4.4), 720p
Supported devices for wireless mirroring (up to 4K depending on device)	iOS, iPadOS, Android, Windows, macOS, Chrome OS	iOS, iPadOS, Android, Windows, macOS, Chrome OS
Supported mirroring protocols	AirPlay, Miracast (Peer-to-Peer and MICE), Chromecast, vSolution Cast	AirPlay, Miracast (Peer-to-Peer and MICE), Chromecast, vSolution Cast
vSolution MATRIX/ Networked AV	Yes, main station and client station (streaming over IP / AV network)	Yes, client station (streaming over IP / AV network)
Media Player: Supported image file formats	GIF, JPEG, BMP, PNG	GIF, JPEG, BMP, PNG
Media Player: Supported document file formats	PDF, Word, PowerPoint, Excel, Text, HTML	PDF, Word, PowerPoint, Excel, Text, HTML
Media Player: Supported video file formats	AVI, WMV, MOV, MP4, DivX, MKV, M4V, OGV	AVI, WMV, MOV, MP4, DivX, MKV, M4V, OGV
Media Player: Supported audio file formats	MP3, WMA, MKA, OGA, OGG	MP3, WMA, MKA, OGA, OGG
Touchback functionality	Yes, for Windows devices (Miracast & vSolution Cast)	Yes, for Windows devices (Miracast & vSolution Cast)
Max. number of on-screen windows	4	4
Dual screen function	Yes (Mirroring, Content, and Moderator Modes)	-
Local streaming	Yes (Unicast/ Multicast), RTP, RTSP	-
Webcasting (Wowza, YouTube, Facebook etc.)	Yes	-
Local video recording	Yes, (360p, 540p, 720p or 1080p, up to 30fps), MP4-container with codec H.264, video file extension *.mp4 (can be copied onto connected USB storage device)	-
Capture Agent for Panopto and other compatible video management platforms	Yes	Yes, via optional Capture Feature Pack (*available Q3 2021)
Cloud services	Yes, Google Drive, Dropbox, Box, Jianguoyun, OneDrive, WebDAV	Yes, Google Drive, Dropbox, Box, Jianguoyun, OneDrive, WebDAV
Microsoft 365 integration	Yes (Active Microsoft 365 account required)	Yes (Active Microsoft 365 account required)
Access to network drives	Yes	Yes
Whiteboard and annotation	Yes	Yes
Protected/Open presentation modes	Yes	Yes
Web conferencing support	Zoom, Microsoft Teams, WebRTC	Zoom, Microsoft Teams, WebRTC
Customizable background image	Yes	Yes
vSolution Link Pro remote administration software	Yes (included for Windows 10, Windows Server (2012R2, 2016), Windows Web Server, macOS)	Yes (included for Windows 10, Windows Server (2012R2, 2016), Windows Web Server, macOS)
Encrypt and save personal user settings	Yes, save onto USB stick	Yes, save onto USB stick
Integrated web browser	Yes, with customisable homepage, bookmarks and screensaver	Yes, with customisable homepage, bookmarks and screensaver
Video input	HDMI x2 (HDMI with HDCP 1.4), (additional optional HDMI In x1 via third party USB framegrabber)	HDMI x1, (additional optional HDMI In x1 via third party USB framegrabber)
HDBaseT 1.0 input	Optional x1 (only when HDMI input 2 is not in use)	-
Video output	HDMI x2 (HDMI with HDCP 1.4)	HDMI x1
HDBaseT 1.0 output	Optional x1 (only when HDMI output 1 is not in use)	-
Audio	Line in / Line out (unbalanced, 3.5mm), HDMI, USB	Line in / Line out (unbalanced, 3.5mm), HDMI, USB
USB ports	Rear USB 3.0 x4, front USB 2.0 x1	Rear USB 3.0 x4, Front USB 2.0 x1
LAN ports	Yes, 2x 1GigE	Yes 2x 1GigE
Bluetooth device discovery	Yes	Yes
WLAN standards (Wi-Fi 5)	2.4 and 5 GHz	2.4 and 5 GHz
Network protocols	TCP/IP, FTP, HTTP, HTTPS, SNMP/NTP, SSL, SSH, UDP, LDAP, LDAPS	TCP/IP, FTP, HTTP, HTTPS, SNMP/NTP, SSL, SSH, UDP, LDAP, LDAPS
IP configuration	DHCP, Static (IP address, Subnet mask, Default gateway, DNS server), Proxy, Interface priority	DHCP, Static (IP address, Subnet mask, Default gateway, DNS server), Proxy, Interface priority
Security authentication for LAN	IEEE 802.1X	IEEE 802.1X
Security encryption for wireless WLAN	WEP, WPA2, WPA2 Enterprise or IEEE 802.1X	WEP, WPA2, WPA2 Enterprise or IEEE 802.1X
RMS protection	Yes, password	Yes, password
External controlling	Remote control, web interface, Visualizer, multi-touch display, room control system, keyboard/mouse, device status display	Web interface, Visualizer, multi-touch display, room control system, keyboard/mouse, optional remote control
Dimensions (L x W x H)	245 x 245 x 79mm (9.65 x 9.65 x 3.1")	203 x 196 x 67mm (7.99 x 7.71 x 2.63")
Power consumption	Max. 105W	Max. 80W
Weight	2530g (5.58lb) standard configuration	1840g (4.05lb)
Optional accessories	19" rack unit mounting, under desk mount, USB hub, HDBaseT-TX module	Optional remote control, 19" rackmount, VESA mount (75mm /100mm)
Included accessories	Remote control, power supply, 4x antennas, LAN cable, HDMI cable	Power supply, antennas
Limited warranty	3 years (optional extension to 5 years)	3 years (optional extension to 5 years)

*Design and specifications subject to change!*

# vSolution MATRIX specifications

## Features

Description	Feature pack option. Activate on a single Cynap system to enable network AV functionality between multiple Cynap and Cynap Core Pro systems
Number of Cynap systems requiring vSolution MATRIX Feature Pack	1
Maximum number of Cynap / Cynap Core Pro stations in room	40
Additional encoders / decoders required	No
Touchscreen compatibility	Yes
Maximum stream resolution	1080p30
Annotation (Collaboration Mode)	All connected stations can annotate on a single document. Content is moderated, and annotations from specific stations can be shown or hidden as required.
Control options	Browser-based control with user-defined Room View layout
Customisable Room View layout	Yes, drag & drop configurator with user-defined stations labelled using names, numbers or colours
Room View Templates	Yes, up to 5 templates can be saved for installations using multiple room layouts
Define groups for screen content sharing	Yes, content sharing to groups from main screen possible for up to 5 pre-defined groups
Station Power On / Power Off feature	Yes
Show Screen / Show All Screens feature	Yes, status of currently displayed content on a specific screen or all screens can be checked via the Room View
Sharing content between multiple screens	Yes, push from the main station to a single client station or to all stations. Pull content from single stations to the main screen
Groupwork Mode	Enables individual stations to be used independently, without requiring the operation of the main station. Up to 4 workstations can share content between themselves.
Coaching Mode	If activated, instructors can use the Room View to drag and drop content from one station directly to another, without needing to pull the content onto the screen of the Main Cynap.
Encrypted file sharing from main station to client stations	Yes, either to a single station or to all stations. Receipt of files is notified by a pop-up. Alternatively the Auto Open File option can be enabled in the settings
Network requirements	1 Gigabit Ethernet
IP Multicast Group Address range	224.3.0.0 to 224.3.0.10
Switch requirement	1 Gigabit Ethernet, Layer 2 or Layer 3 with enabled IGMP snooping
Streaming	H.264
Audio	Audio can be activated on the student stations.
Management tools, remote setup, update and management	vSolution Link Pro software (for Windows 10, Windows Server 2012 R2 & 2016, Windows Web Server, macOS) provides admin support including centralised firmware upgrades, checking the state of a Cynap and Wake-on-LAN. A settings profile can be created and distributed to multiple Cynap systems.
Security authentication for LAN	IEEE 802.1X
Encryption of all wireless content (WLAN)	WEP, WPA2, WPA2 Enterprise or IEEE 802.1X

Please refer to Cynap & Cynap Core Pro specifications for individual Cynap/Cynap Core Pro system capabilities

Design and specifications subject to change!



# Find out more about WolfVision solutions!



Printed in Germany, May 2021

Please contact a WolfVision representative for more information, and experience the powerful performance, versatility, and usability of our unique, flexible systems and solutions for enhancing communication, collaboration, and knowledge sharing across all environments.

Your WolfVision Partner:



More information:

**WOLFVISION**<sup>®</sup>  
[www.wolfvision.com](http://www.wolfvision.com)

**Head Office:**

WolfVision GmbH  
6833 Klaus / Austria  
Tel. +43 5523 52250  
[wolfvision@wolfvision.com](mailto:wolfvision@wolfvision.com)

Japan Sales Office  
WolfVision Co. Ltd.  
Tel. +81 3 6233 9465  
[wolfvision.japan@wolfvision.com](mailto:wolfvision.japan@wolfvision.com)

USA Sales Office  
WolfVision, Inc.  
Tel. +1 770 931 6802  
[sales@wolfvision.us](mailto:sales@wolfvision.us)

Nordic Sales Office  
WolfVision Nordic (Norway)  
Tel. +47 9186 9736  
[wolfvision.nordic@wolfvision.net](mailto:wolfvision.nordic@wolfvision.net)

UK Sales Office  
WolfVision UK Ltd.  
Tel. +44 1628 968660  
[wolfvision.uk@wolfvision.com](mailto:wolfvision.uk@wolfvision.com)

Middle East Sales Office  
WolfVision Middle East (Dubai)  
Tel. +971 5617 40008  
[wolfvision.mideast@wolfvision.com](mailto:wolfvision.mideast@wolfvision.com)

Asia Sales Office  
WolfVision Pte. Ltd. (Singapore)  
Tel. +65 6636 1268  
[wolfvision.asia@wolfvision.net](mailto:wolfvision.asia@wolfvision.net)

Germany Sales Office  
WolfVision GmbH  
Tel. 0800 9828 787  
[wolfvision.deutschland@wolfvision.com](mailto:wolfvision.deutschland@wolfvision.com)

