

# Systems & Solutions



# Driving Knowledge Creation

WolfVision is a provider of systems and services to leading universities, businesses, schools, and other organisations. An acknowledged 'technology leader' in the Visualizer and wireless presentation solutions market, WolfVision is the company that takes the lead, setting standards worldwide for innovative, reliable, user-friendly, high performance presentation, collaboration and knowledge sharing solutions.



With more than 40 years experience, our extensive knowledge and expertise across all application sectors enables us to offer comprehensive consultative guidance on customised combinations of hardware systems, software, apps, and accessories, which enhance communication, collaboration, and knowledge sharing across all environments. As part of each individual vSolution, WolfVision offers not only pre-sales advice, but also post-sales support, training, and service, ensuring that you receive maximum benefit from your investment.



# Flexible Knowledge Sharing

## Meetings and Conferences



WolfVision presentation and collaboration systems are used by leading companies worldwide, to support effective communication and collaboration in the workplace.

For "live" analogue imaging, for high quality display of multi-source, multi-window digital content, or for complete all-in-one meeting room solutions with integrated room booking capability, WolfVision offers the high performance systems you need to ensure that meeting participants are able to deliver their message in the most effective manner possible.

## Education & Training



WolfVision Visualizer systems support the skills and efforts of educators in communicating and making a meaningful connection with the student audience, creating vivid learning experiences that leave a lasting impression.

Our cost-effective, easy-to-use, AV over IP-based, vSolution MATRIX active learning classroom solutions, help to create learning spaces that encourage increased student engagement, interaction, and collaboration.

## Courtroom & Legal



WolfVision Visualizer systems enable crime weapons, documents from expert witnesses, x-rays, or forensic evidence to be easily shown to all court participants in fine detail, without any interruption to proceedings.

Multi-source, multimedia digital content can be organised and securely displayed on-screen using our Cynap presentation and collaboration systems.

“

“WolfVision equipment is great to work with. It is evident that a great deal of thought is put into the design of every aspect of each piece of equipment. Just as important is the high degree of confidence inspired by WolfVision representatives, repair facilities and technical support.”

*Bruce Horn*

*Learning Technologies  
Classroom Operations Manager  
University of California, Santa Cruz, USA*

# Choose your Cynap system!



## CYNAP PURE

### BYOD: wireless presentation made easy

A compact BYOD wireless presentation solution, perfect for classrooms, meeting rooms, and huddle spaces of all sizes, where high quality, easy-to-use, wireless screen sharing onto a central shared screen is the primary focus.



BYOD screen sharing



Touchback-function



Enterprise level security



Flexible network integration



Room management APIs



Peripheral device control

new



## CYNAP PURE PRO

### Outstanding wireless presentation and collaboration

With all the functionality of Cynap Pure, plus some of the features of our larger Cynap systems, Cynap Pure Pro is an ideal add-on to existing infrastructure, providing high performance wireless screen mirroring, combined with a range of popular collaboration tools.



BYOD screen sharing



Touchback-function



Enterprise level security



Flexible network integration



Room management APIs



Peripheral device control



Audio/Video USB input



Document & Media Player



Zoom meetings WebRTC



IP stream receive



Integrated Web browser



Whiteboard & Annotation



Office 365 Teams Meetings



vSolution Meeting



# Advanced connectivity



**CYNAP CORE**

## Advanced collaboration & presentation solution

Easy to use collaboration system, providing 'core essential' collaboration features. Advanced network integration options make it an ideal centrepiece for smaller installations, and it is also a key component of our MATRIX active learning classroom solution.



BYOD screen sharing



Touchback-function



Enterprise level security



Flexible network integration



Room management APIs



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Zoom Meetings WebRTC



IP stream receive



Integrated Web browser



Whiteboard & Annotation



Office 365 Teams-Meetings



vSolution Meeting



vSol. MATRIX compatible

VS



**CYNAP**

## Centrepiece of the modern classroom

A powerful all-in-one wireless presentation and collaboration system, featuring a media player, web conferencing, recording and streaming, BYOD wireless screen sharing, and annotation functionality. Also the 'main station' of our MATRIX collaboration solution.

CHDBT Option



BYOD screen sharing



Touchback-function



Enterprise level security



2x HDMI input



Flexible network integration



Room management APIs



Peripheral device control



HD Video recording



Audio/Video USB input



Document & Media Player



Zoom Meetings WebRTC



Web-casting



IP stream receive



Integrated Web browser



Whiteboard & Annotation



Panopto/Opencast Lecture Capture



Office 365 Teams-Meetings



vSolution Meeting

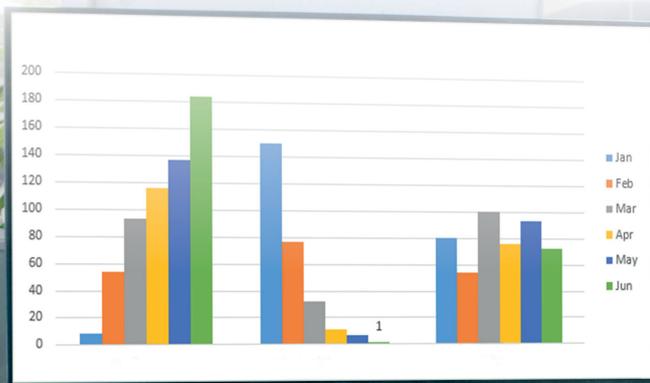


vSol. MATRIX main station

# Cynap Pure: BYOD wireless presentation made easy!

When you're looking for a wireless BYOD presentation solution for your organisation – look no further than Cynap Pure, the leading solution for meeting rooms, classrooms and huddle spaces everywhere.

With best-in-class, crystal clear, 4K UHD resolution, unrivaled ease of use, 4 window on-screen display, touchback functionality, and unique professional features unavailable on any other competitor system, check out Cynap Pure, the No. 1 wireless BYOD screen sharing solution available today.



## Pure perfection!

- >> Easy to setup, simple to use
- >> Hassle-free screen mirroring for all smartphones, laptops & tablets
- >> No apps, no dongles required
- >> Best-in-class security features
- >> Outstanding hardware performance
- >> Remote administration & management

## No apps, no buttons, no cables, no hassle



Cynap Pure supports AirPlay, Miracast, and Chromecast screen mirroring, so no apps, buttons, dongles or extra software are needed when sharing content on-screen from any smartphone, laptop or tablet.

## 4K UHD output resolution



4K UHD output resolution with 60 frames per second, ensures that on-screen content from any device always looks superb, and the innovative touchback feature gives you latency-free remote control of your laptop while working at the main screen.

## Enterprise level security



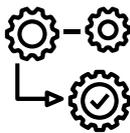
Network security is a key consideration, and our custom-built, closed, Linux system offers 100% wireless data encryption, IEEE802.1x authentication, plus customisable security features to give you exactly the level of protection you require.

## Professional integration



Cynap Pure can be set up and used immediately. Settings are easy to configure, and customisable/prepared API modules ensure professional integration, whatever your requirements. Configuration is also possible to control peripheral devices.

## Remote management & administration



Our vSolution Link Pro software is supplied free of charge facilitating easy remote setup, monitoring, management, and updating of multiple systems across multiple locations.

## Free firmware, no license fees



Regular firmware updates provide you with new features and improvements, helping to extend the life of your investment and maximise your ROI.



## First class presentations!

- >> Intuitive user interface
- >> App-free, dongle-free wireless screen sharing for all laptops smartphones & tablets
- >> Supports AirPlay, Miracast, Chromecast, vSolution Cast



## Cynap Pure Pro: Flexible presentation & collaboration!

With all the functionality of Cynap Pure, plus many of the features of our larger Cynap systems, Cynap Pure Pro provides app-free, button-free wireless screen mirroring, combined with a range of other popular collaboration tools. Meeting rooms, classrooms and huddle spaces can all benefit from the extra features such as web conferencing integration, annotation and whiteboard functionality, media player, web browser, and much much more - all operated seamlessly using our award-winning, easy-to-use Cynap GUI.





# Cynap Pure Pro: Extended version with popular collaboration tools

## Integrated web browser



Display web-based content side by side on-screen, together with your regular presentation materials for incredible flexibility in classrooms or meeting rooms.

## Annotate over any open window



Add to your content material using our built-in annotation features - or note down your ideas using the digital whiteboard, and save the output of both for further use.

## Access your files from any source



Data is shared on-screen easily from cloud, network drives or mobile devices – even laptops are no longer essential – just bring your content on a USB stick, or download directly from the cloud!

## Instant access to Zoom meetings



Cynap Pure Pro provides support for Zoom video meetings. It's easy to start an instant meeting or join a scheduled Zoom meeting directly from within Cynap Pure Pro. Support for WebRTC web conferencing is also provided.

## vSolution Meeting feature pack



The optional room booking feature pack interfaces perfectly with your Outlook Calendar. It's easy to upload files in advance of a meeting, and automatically distribute them afterwards, and the on-screen quick tools bar ensures quick and easy control of all content.

## Office 365 feature pack

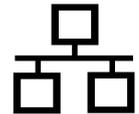


Access popular Office 365 apps directly from Cynap Pure Pro including Microsoft Teams (active Office 365 account required). Files are easy to open, work on collaboratively, and share with teammates.

# Cynap Core: Core essentials for collaboration & presentation!

Cynap Core provides the core essential features you need for effective collaboration, and wireless presentation. This powerful, secure, and easy-to-use collaboration system provides a complete all-in-one meeting room solution. It is also a key component of our vSolution MATRIX active learning classroom collaboration solution.

## 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.

## 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.

## Instant access to Zoom meetings!



Cynap Core provides support for Zoom video meetings. It's possible to start an instant meeting or join a scheduled Zoom meeting directly from within Cynap Core. Support for WebRTC web conferencing is also provided.

## 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!

## vSolution Meeting Feature Pack

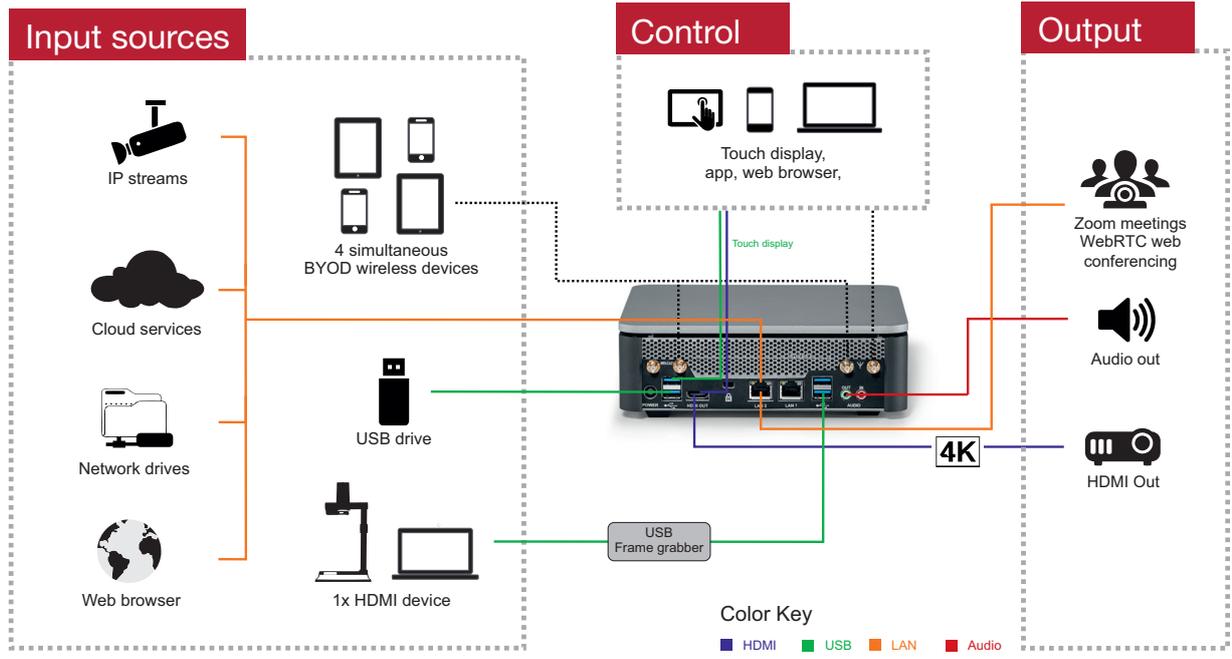


This optional room booking feature pack interfaces perfectly with your Outlook Calendar. It's easy to upload files in advance of a meeting, and automatically distribute them afterwards, and the on-screen quick tools bar ensures quick and easy control of all content.

## Office 365 Feature Pack



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



# vSolution Cynap™ Presentation, Collaboration & Knowledge Sharing

Just like in the human brain where synapses are essential for rapid processing and transmission of information, the Cynap presentation and collaboration system, is a powerful, multi-functional, flexible interface, providing quick and easy access to information of all types from any source. It is the ideal system for inspiring engagement, interaction, and collaboration, in education, business and courtroom environments. With its optional feature pack, Cynap also functions as the 'main station' of our vSolution MATRIX collaboration solution.



#### Media player: Information on demand

Cynap plays, displays, records, and streams all commonly used media simultaneously, providing incredible versatility during meetings, lectures, and collaborative

sessions. Information is easily available, whether stored locally or in the cloud, and files are also accessible for playback using a connected USB stick.



#### Video recording / Lecture capture agent

Full HD video recording captures all types of content materials, making flexible recording of multi-source, multimedia educational content easier than ever before.

Adding the optional Capture Feature Pack enables Cynap to also act as a capture agent for Panopto and Opencast video management platforms.



#### Webcasting: Efficient knowledge sharing

Our optional Webcasting Feature Pack makes it simple to stream content for live or on-demand viewing via platforms such as Wowza, YouTube, Facebook Live. Additionally, students

or work colleagues on the same network as the presenter can receive and record a stream to their mobile devices using our vSolution App.



#### Wireless presentation: Bring your own device (BYOD)

Cynap offers an all-in-one wireless BYOD solution suitable for all smartphones, tablets and laptops. AirPlay, Chromecast, and Miracast mirroring is supported, and up to 4

devices can connect without needing extra apps, dongles or additional software, and display on-screen content simultaneously in up to 4K output resolution.





“Cynap is a powerful collaboration system that enables high performance presentation, recording, and distribution of all types of multimedia content material”

*Douglas Marsland -  
Head of Audiovisual Services.  
Heriot-Watt University, Edinburgh, UK.*



**Office 365 Feature Pack**

The Office 365 Feature Pack provides access to popular Office 365 apps such as Word, PowerPoint, Excel, Outlook, Microsoft Teams, and One-Note (active Office 365 account required).



**Access to Zoom meetings**

Cynap provides support for Zoom video meetings. It's possible to start an instant meeting or join a scheduled Zoom meeting directly from within a Cynap system.



**Whiteboard and annotation**

Collaborate together using the built-in digital whiteboard and annotation features of the Cynap System. Written notes are easily recorded and shared, along with other multimedia information.



**Meeting room scheduling**

The optional vSolution Meeting Feature Pack integrates a room booking feature into Cynap which interfaces perfectly with your Outlook Calendar, and also features flexible ad-hoc in-room booking capability.

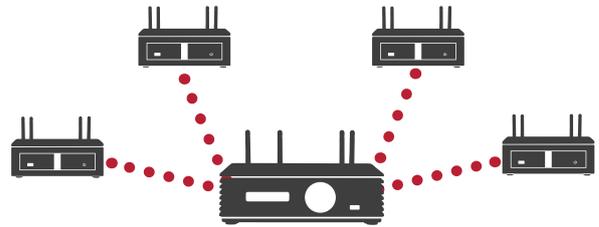


# vSolution MATRIX: Networked AV-based technology for active learning

vSolution MATRIX is an AV over IP-based collaboration solution from WolfVision, which uses multiple Cynap / Cynap Core units to stream video and audio between multiple screens using existing network infrastructure.

Available as a feature pack upgrade for Cynap systems, it is ideal 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.

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 system installed. Content is shared between connected monitors and the main screen in the room



with all processing performed by the installed Cynap systems themselves. This eliminates the need for additional encoding/decoding hardware.

Enterprise level encryption ensures secure delivery of content materials between workstations, and this scalable, cost effective, presentation and collaboration solution gives all the performance, and reliability associated with traditional AV distribution methods.



# Easy drag & drop control of multiple screens



A Cynap system at every workstation ensures an intuitive and easy-to-use collaborative working environment for all users, and the simple drag and drop interface enables content to be moved effortlessly between different screens in the room.

The Room View is used to control pushing and pulling of content between displays, and flexible configuration settings enable up to 40 workstations to be configured using either names, num-

bers or colours, to exactly match the actual layout of individual learning spaces.

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.



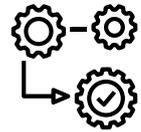
# vSolution MATRIX: Key benefits

## 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 for breakout groups, or for other small groups working independently during times when the entire room is not being used.

## Easy remote administration



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

## Free firmware updates, no hidden costs!



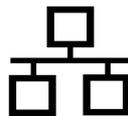
When installing up to 40 workstations, it's a key benefit that WolfVision does not charge subscription fees or apply per workstation recurring licensing costs. All firmware updates are free of charge, maximising your ROI and helping to futureproof your system.

## 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.

## 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 setup.

## Files at your fingertips



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

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



Competitor solutions require the use of apps, dongles, and additional software in the classroom. Only WolfVision offers a true app-free, dongle-free, hassle-free learning environment for all students.

## 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.



“

“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**

# Desktop Visualizer Systems



vSolution Cam

## vSolution Cam \*

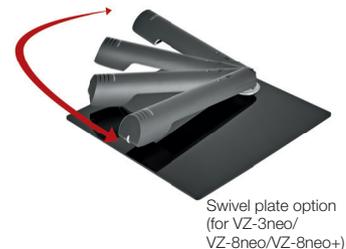
vSolution Cam is an elegant, entry level Visualizer system with excellent picture quality, plus the same robust design, and unrivalled ease of use, that is found throughout the entire WolfVision product line.

Streamlined to include only essential functionality, it features a 4x HD zoom, an ultra-high resolution camera with 1080p HD output, adjustment-free LED lighting, and HDMI output. An optional Riser Plate enables pick-up of content materials in up to A4 portrait size.



VZ-3neo  
VZ-8neo

VZ-8neo+



Swivel plate option  
(for VZ-3neo/  
VZ-8neo/VZ-8neo+)

## VZ-3neo Series \*

The VZ-3neo Visualizer system features 1080p HD resolution, 30 frames per second, continuous autofocus, HDMI in/out, and a 12x zoom which can pick up objects as large as an open book or as small as a credit card in full size to fill a screen.

VZ-3neo units are available either with or without an integrated working surface. The version without working plate is designed for permanent mounting directly onto a desktop or podium using the supplied swivel plate.

## VZ-8neo Series

VZ-8neo Series Visualizers feature the same elegant design as the VZ-3neo. They come with 1080p HD resolution, HDMI in/out, and a powerful 24x zoom, enabling very small fingernail-sized items to be easily enlarged sufficiently to fill a display screen.

The VZ-8neo+ comes with an LCD preview monitor for easier positioning of objects, a remote control, and frame rate of 60 fps which further improves the smoothness of motion and autofocus performance.



VZ-8.UHD

## VZ-8.UHD

With the VZ-8.UHD, we introduce our first native 4K UHD Visualizer system. Combining 4K UHD output resolution, touchscreen control and preview monitor, plus 4K recording and streaming functionality, together with newly designed optical and electronic systems, with the VZ-8.UHD, we set the standards worldwide for innovative, user-friendly, networked AV ready, high performance Visualizer systems.



VZ-9.4F / VZ-9.4L

## VZ-9.4 Series

The VZ-9.4 Series Visualizers come with integrated WLAN and audio, and both models are fully featured multimedia recording devices, with built-in HD recording functionality. The VZ-9.4F features native 1080p HD resolution at a frame rate of up to 60fps, and the VZ-9.4L comes with a native WXGA / 720p HD camera at 30fps - and Synchronized Lasermarkers for easier positioning of objects.



“Our faculty and students demand state-of-the-art technology. That’s why we have outfitted 95% of our learning spaces with WolfVision Visualizers. We selected WolfVision as our campus standard because of their high-end optics and easy to use interface. Faculty need to focus on their content, not what button to push or knob to turn.”

*Dr. James P. Frazee,  
Senior Academic  
Technology Officer, San  
Diego State University, USA*

## Our Vision

When you've got something to say, we believe it is important that getting your message across and making an impact should be as easy as possible.

Our aim is to help you to explain it better, to give you the freedom to share your knowledge and collaborate with others - however you want, and whenever you want, when your audience is in the same room or on the other side of the world.

**Because knowledge matters  
to all of us.**



# Innovation on the ceiling

WolfVision's unique ceiling systems are easily integrated into a suspended ceiling or mounted onto the ceiling just like a projector. This enables the speaker's workspace to remain completely free of technical equipment - leaving nothing to obstruct the view between a speaker and the audience during a presentation, and allowing larger items to be easily displayed than when using a Desktop Visualizer system. A Synchronized Lightfield highlights and illuminates the pick-up area of the camera, showing exactly where to place display materials on the working surface - and when zooming in and out, the size of this lightfield adjusts automatically.

"WolfVision Visualizers enable us to explain complicated procedures much more vividly and in fine detail. For us they are quite simply irreplaceable, and it is very hard for us to imagine how we used to teach without them."

*Dr. Matthias Hirner,  
Professor of Physics and  
Informatics, HTL School of  
Engineering, Bregenz, Austria*

## VZ-C6 Series

The VZ-C6 Ceiling Visualizer system features native 1080p HD resolution at 30 frames per second, and a Synchronized Lightfield for easy positioning of objects.

The VZ-C6 comes with a premium quality high precision wide angle lens with 12x optical zoom factor. In combination with the 4x digital zoom the total zoom range is 48x. This allows for the installation in rooms at a height of up to 3m (10'), and facilitates zooming in very closely, as well as picking up very large objects.

Integrated WLAN, and an 8GB internal memory are also provided, together with on-board HD video recording and streaming. The VZ-C6 is an outstanding presentation and lecture capture system, mounted on the ceiling.



## Innovative networking of people & knowledge!

“Generating new and sometimes groundbreaking knowledge, whether in education or in research presents tremendous, but at the same time marvellous challenges. Meeting these challenges successfully requires innovative, comprehensive solutions, for presentation, knowledge sharing, and collaboration. This is what vSolution offers us.”

*Michael Sadler, Media Services Infrastructure Coordinator,  
City University, London*



++ Video ++

# Closer to Reality: 3D System

WolfVision's VZ-C3D is the world's first and only LIVE 3D presentation solution. This ceiling-mounted, 3D Visualizer features two high precision lenses and an onboard stereoscopic mixer which enables spectacular 'live' high definition 3D images to be viewed in real-time with any 3D enabled display. The VZ-C3D also features WolfVision's Synchronized Lightfield for easy and intuitive positioning of objects, and has built-in recording functionality.



## 3D Visualizer Series

The VZ-C3D delivers stunning visuals for 3D applications such as education and science, videoconferencing, telepresence, healthcare, telemedicine, product design, engineering, and many more.

- Breathtaking 3D image quality enhances any presentation, lecture or training session
- Educational and training materials are far more realistic and engaging
- Complex 3D objects are more easily explained
- In videoconferencing and telepresence applications, 3D imaging increases the immersive experience for participants
- Corporate presentations and product launches are more impressive and have greater impact



reddot design award  
winner 2013

VZ-C3D



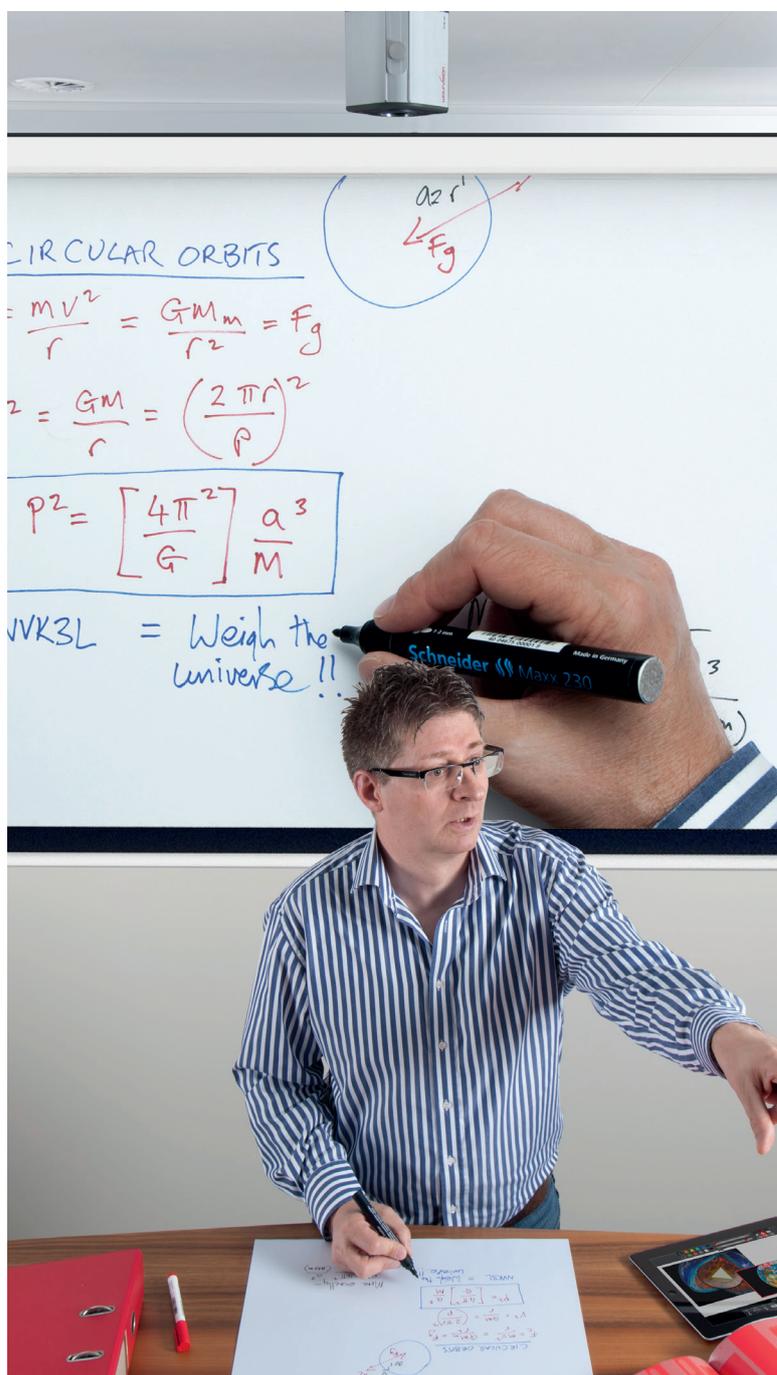
# EYE-14 Camera System

The EYE-14 is a powerful high definition Live Image Camera system which give outstanding results, whether used as an alternative to a Ceiling Visualizer (without light), or when mounted on a tripod, pan-tilt zoom mount or wall mount designed for video or surveillance cameras. For ceiling use, this system can be either mounted directly onto the ceiling or integrated into a suspended ceiling.

## EYE-14

The EYE-14 features a native 1080p HD camera with 980 lines resolution, 56x zoom, and comes with onboard HD video recording functionality and 8GB internal memory.

The camera system also features a single Center Lasermarker which marks the center point of the working surface, for easy positioning of objects. The lasermarker is synchronized with the frame rate of the camera, which means that whilst it is visible on the working surface, it is completely invisible in on-screen images and recordings.



# Software & Apps: Extra features & functionality

WolfVision systems don't require the installation of buttons, apps or software before they can be used. However, there are various extra features that are available using the following tools if required:

## vSolution App: Get more from your WolfVision systems

- Receive and record a stream of presentation and lecture content from a Cynap system onto your own mobile device.
- For Android and iOS/iPadOS users in network environments where the mDNS / Bonjour services (device discovery protocols) have been disabled, the app enables users to discover a Cynap/ Cynap Core / Cynap Pure manually, enabling connection via AirPlay or Chromecast.
- An easy-to-use remote control function enables presenters to connect to a WolfVision Visualizer or Cynap/Cynap Core system, and then use the intuitive touch-screen interface to control their content materials wirelessly from their own mobile device.
- Use as a convenient web conferencing controller when accessing remote meetings.

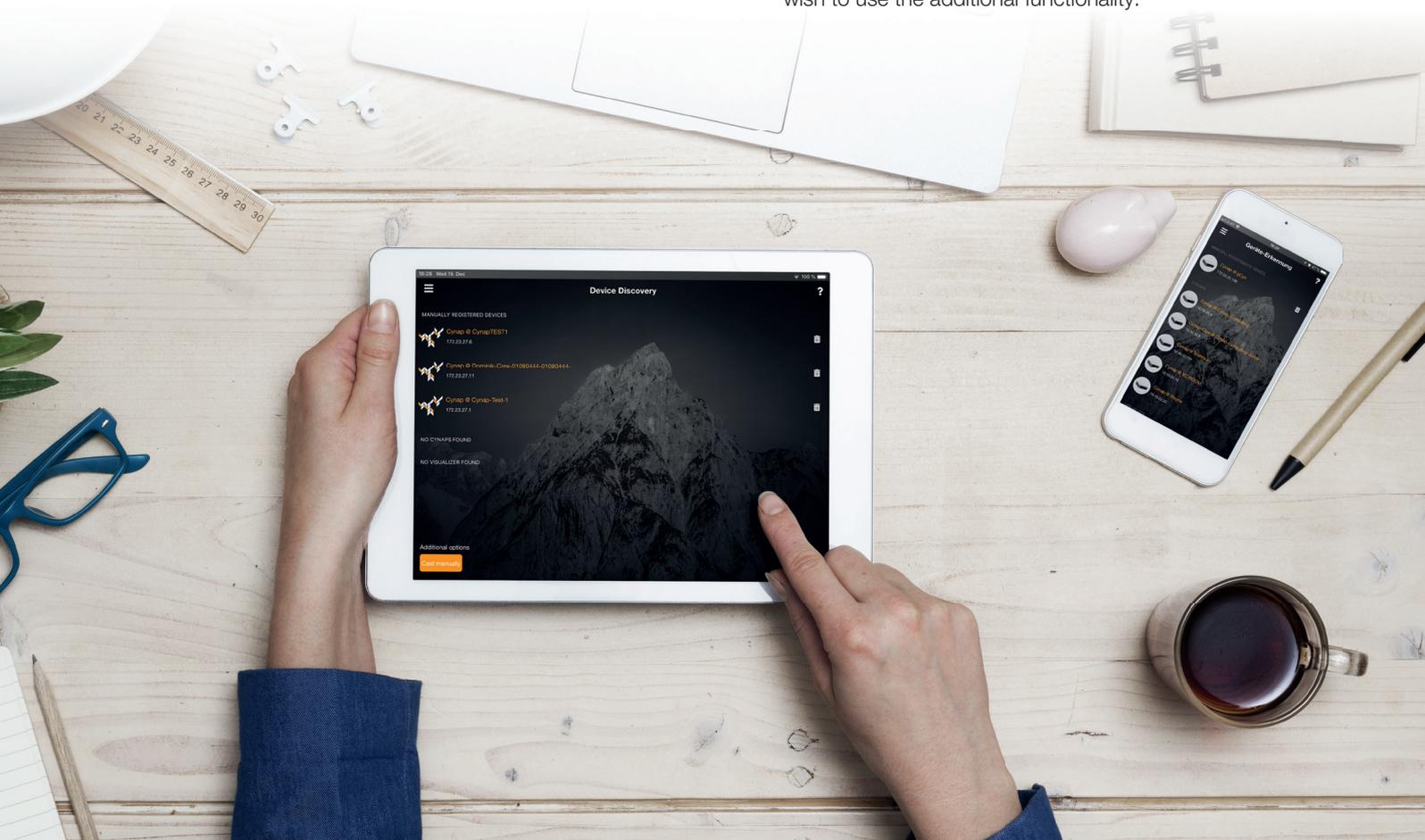
## vSolution Link Pro Remote administration & management

vSolution Link Pro software enables remote organisation and management of all vSolution Cynap family and Visualizer systems across multiple locations. It includes the following:

- Local administrator setup, device assignment and administrative functions
- Updating firmware for single/multiple devices
- Rollout of settings to multiple Cynap systems
- Backup and restore of Cynap settings
- Status monitoring of Cynap and Visualizer systems

## vSolution Cast: 4K mirroring

- 4K screen mirroring from Windows laptops.
- When screen mirroring from a Windows laptop to Cynap systems, either a single window or the entire desktop can be shared onto the display screen.
- Screen mirroring to all Cynap systems for Windows users who do not have built-in Miracast, or wish to use the additional functionality.



# Visualizer & Camera specifications

Features	vSolution Cam	VZ-3neo	VZ-8neo	VZ-8neo+	VZ-8.UHD	VZ-9.4F	VZ-9.4L	VZ-C6	VZ-C3D	EYE-14
Camera	1-CMOS	1-CMOS	1-CMOS	1-CMOS	1-CMOS	1-CMOS	1-CCD	1-CMOS	2-CMOS	1-CMOS
2D/3D imaging	2D	2D	2D	2D	2D	2D	2D	2D	3D	2D
Horizontal resolution (lines)	980 *	980	980	980	1600	980	860	980	980	980
Frames per second	30	30	30	60	60	60	30	30	30	30
Effective megapixels per second	289.8	62.2	62.2	124.4	497.6	124.4	36.8	62.2	124.4	62.2
Native output resolution	1080p	1080p	1080p	1080p	2160 UHD	1080p	720p/WXGA	1080p	1080p in 3D	1080p
Converted output resolution in 16:9 and 16:10	720p	WUXGA, WXGA, 720p	WUXGA, WXGA, 720p	WUXGA, WXGA, 720p	1080p, 720p	WUXGA, WXGA, 720p	WUXGA, WXGA, 1080p	WUXGA, WXGA, 720p	-	WUXGA, WXGA, 720p
Converted output resolution in 4:3 and 5:4	-	UXGA, SXGA, XGA, SVGA	UXGA, SXGA, XGA, SVGA	UXGA, SXGA, XGA, SVGA	-	UXGA, SXGA, XGA, SVGA	UXGA, SXGA, XGA, SVGA	UXGA, SXGA, XGA, SVGA	-	UXGA, SXGA, XGA, SVGA
vSolution Link Pro compatible	•	•	•	•	•	•	•	•	•	•
UVC compatible	•	•	•	•	•	•	•	•	-	•
Free firmware updates included	•	•	•	•	•	•	•	•	•	•
Easy positioning of objects with synchronized lightfield	-	-	-	-	-	-	-	•	•	-
Easy positioning of objects with synchronized lasermarkers	-	-	-	-	-	-	•	-	-	-
Easy positioning of objects with center lasermarker	-	-	-	-	-	-	-	-	-	•
Built-in LCD preview monitor	-	-	-	•	•	•	•	-	-	-
Live to freeze comparison	-	•	•	•	•	•	•	•	-	•
Optical zoom	4x HD zoom	6x	12x	12x	16x	16x	16x	12x	15x	14x
Digital zoom	10x	2x	2x	2x	4x	4x	4x	4x	4x	4x
High speed autofocus/manual focus	•	•	•	•	•	•	•	•	•	•
9-point Touch and Focus Mode	-	-	-	-	•	-	-	-	-	-
Brightness control	•	•	•	•	•	•	•	•	•	•
Shadow-free illumination/illumination of hollow objects	-	-	-	-	-	-	-	•	•	-
Camera rotation (audience/speaker)	-	-	-	-	90° to audience	180/110°	180/110°	-	-	-
User programmable presets	-	1	1	3	3	3	3	3	3	3
Optional dry-erase working surface	•	•	•	•	•	•	•	•	•	•
Swivel plate option with 90° rotation	-	•	•	•	-	-	-	-	-	-
Computer input/input switch	-	HDMI	HDMI	HDMI	2x HDMI	2x HDMI	2x HDMI	HDMI	-	-
Seamless switching/fading effects	-	-	optional	•	•	•	•	•	-	•
Image memory	1 image freeze	1 image freeze	1 freeze (9 +USB optional)	9 + USB stick	8GB + USB stick	8GB + USB stick	8GB +USB stick	8GB +USB stick	500GB SSD	8GB +USB stick
Digital image output	HDMI	HDMI	HDMI	HDMI	HDMI	HDMI	HDMI	HDMI	HDMI	HDMI
Analog image output	-	-	-	-	-	VGA	VGA	VGA	-	VGA
USB 2.0 Device port	•	•	•	•	•	•	•	•	-	•
USB 2.0 host port	1	1	1	1	2	1	1	1	-	1
Ethernet (LAN) port	•	•	•	•	•	•	•	•	•	•
Unicast/multicast streaming	-	-	-	•	•	•	•	•	•	•
Video recording	-	-	-	-	•	•	•	•	•	•
Built-in microphone	-	-	-	-	-	•	•	-	-	-
Audio line in / line out	-	-	-	•	Audio via HDMI In/Out	•	•	•	Line level mic input	•
Infrared remote control	-	-	optional	•	optional	•	•	•	•	•
Warranty (in years)	5	5	5	5	5	5	5	5	5	5
Made in Austria /Europe	•	•	•	•	•	•	•	•	•	•

\* Average Measured resolution (Q)

Design and specifications subject to change!

# Cynap systems specifications

Features	Cynap Pure	Cynap Pure Pro	Cynap Core	Cynap
Operating system	Linux	Linux	Linux	Linux
Output resolution	2160p60/30, 1080p60/30, 720p60	2160p60/30, 1080p60/30, 720p60	2160p30, 1080p60/30, 720p60	2160p60, 2160p30, 1080p60
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	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	AirPlay, Miracast (Peer-to-Peer and MICE), Chromecast, vSolution Cast	AirPlay, Miracast (Peer-to-Peer and MICE), Chromecast, vSolution Cast
vSolution MATRIX compatible	-	-	Yes, client only	Yes (main station via optional feature pack, or client)
Media Player: Supported image file formats	-	GIF, JPEG, BMP, PNG	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	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	AVI, WMV, MOV, MP4, DivX, MKV, M4V, OGV
Media Player: Supported audio file formats	-	MP3, WMA, MKA, OGA, OGG	MP3, WMA, MKA, OGA, OGG	MP3, WMA, MKA, OGA, OGG
Max. no. of on-screen windows	4	4	4	4
Dual screen function	-	-	-	Yes
Local streaming	-	-	-	Yes (Unicast/ Multicast), RTP, RTSP
Webcasting (Wowza, YouTube, Facebook etc.)	-	-	-	Yes, via optional Feature Pack
Local video recording	-	-	-	Yes, up to 1080pHD, 30fps
Optional Capture agent (Panopto/Opencast)	-	-	-	Yes, via Feature Pack option
Cloud services	-	Yes, Google Drive, Dropbox, Box, Jianguoyun, OneDrive, WebDAV	Yes, Google Drive, Dropbox, Box, Jianguoyun, OneDrive, WebDAV	Yes, Google Drive, Dropbox, Box, Jianguoyun, OneDrive, WebDAV
Optional Office 365 Feature Pack	-	Yes	Yes	Yes
Optional vSolution Meeting Feature Pack	-	Yes	Yes	Yes
Access to network drives	-	Yes	Yes	Yes
Whiteboard and annotation	-	Yes	Yes	Yes
Protected/Open presentation modes	Yes (via room control system)	Yes	Yes	Yes
Web conferencing support	-	Zoom, Microsoft Teams, WebRTC	Zoom, Microsoft Teams, WebRTC	Zoom, Microsoft Teams, WebRTC
vSolution Link Pro remote admin software	Yes	Yes	Yes	Yes
Encrypt and save personal user settings	-	Yes, save onto USB stick	Yes, save onto USB stick	Yes, save onto USB stick
Integrated web browser and screensaver	-	Yes	Yes	Yes
Video input	-	HDMI In not supported (HDMI source possible via frame grabber if required)	HDMI In not supported (HDMI source possible via frame grabber if required)	HDMI x2 (HDMI with HDCP 1.4)
HDBaseT 1.0 input	-	-	-	Optional x1 (only when HDMI input 2 is not in use)
Video output	HDMI x1	HDMI x1	HDMI x1	HDMI x2 (HDMI with HDCP 1.4)
HDBaseT 1.0 output	-	-	-	Optional x1 (only when HDMI output 1 is not in use)
Audio	Via HDMI out, USB	Via HDMI out, USB	Line in / Line out (unbalanced, 3.5mm)	Line in / Line out (unbalanced, 3.5mm)
USB ports	Rear USB 3.0 x2, Front USB 3.0 x2	Rear USB 3.0 x2, Front USB 3.0 x2	Rear USB 3.0 x4, Front USB 2.0 x1	Rear USB 3.0 x4, front USB 2.0 x1
LAN ports	Yes 1x 1GigE	Yes 1x 1GigE	Yes 2x 1GigE	Yes, 2x 1GigE
Bluetooth device discovery	Yes	Yes	Yes	Yes
WLAN standards	802.11 ac/a/b/g/n (2.4 & 5GHz)	802.11 ac/a/b/g/n (2.4 & 5GHz)	802.11 ac/a/b/g/n (2.4 & 5GHz)	802.11 ac/a/b/g/n (2.4 & 5GHz)
Network protocols	TCP/IP, HTTP, HTTPS, SNMP/NTP, SSL, SSH, UDP	TCP/IP, HTTP, HTTPS, SNMP/NTP, SSL, SSH, UDP	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	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	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	WEP, WPA2, WPA2 Enterprise or IEEE 802.1X	WEP, WPA2, WPA2 Enterprise or IEEE 802.1X
RMS encryption	Yes	Yes	Yes	Yes
External controlling	Multi-touch display, web interface, room control system, keyboard/ mouse, optional remote control	Multi-touch display, web interface, room control system, keyboard/ mouse, optional remote control	Web interface, Visualizer, multi-touch display, room control system, keyboard/ mouse, optional remote control	Remote control, web interface, Visualizer, multi-touch display, room control system, keyboard/ mouse, device status display
Dimensions (L x W x H)	115 x 110 x 37 mm (4.53 x 4.33 x 1.46")	115 x 110 x 37 mm (4.53 x 4.33 x 1.46")	203 x 196 x 67mm (7.99 x 7.71 x 2.63")	245 x 245 x 79mm (9.65 x 9.65 x 3.1")
Power consumption	Max. 65W	Max. 65W	Max. 80W	Max. 105W
Weight	480g (1.06lb)	480g (1.06lb)	1840g (4.05lb)	2530g (5.58lb) standard configuration
Optional accessories	Optional remote control	Optional remote control	Optional remote control, 19" rackmount, VESA mount (75mm /100mm)	19" rack unit mounting, under desk mount, USB hub, HDBaseT-TX module
Included accessories	Power supply, VESA mount (75mm /100mm)	Power supply, VESA mount (75mm /100mm)	Power supply, antennas	Remote control, power supply, antennas, LAN cable
Limited warranty	3 years	3 years	3 years (optional extension to 5 years)	3 years (optional extension to 5 years)

# 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 systems
Number of Cynap systems requiring vSolution MATRIX Feature Pack	1
Maximum number of Cynap / Cynap Core 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.
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 Desktop, Windows Server 2012 R2 & 2016) 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

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