

Christie Phoenix

Government
Public utilities
Security and surveillance
Telecommunications
Transportation



Content mobility redefined

Sharing accurate information quickly is a priority in demanding control room environments. It is increasingly important for multiple users to share, view and interact with data across a distributed organization, receiving precise information to make quick, informed decisions.

Christie® Phoenix® is an open content management system that provides access and control over audiovisual data sources – securely, from anywhere, at any time, via standard IP networking technology. The same information, made available simultaneously to multiple users in the

same format, dramatically expands the capabilities and effectiveness of a single control room location.

The Christie Phoenix system may include one or many hardware nodes that operate from an Ethernet network, providing the means to share content between display systems efficiently. Christie Phoenix systems can be managed with easy-to-use software and interfaced to external control systems. This makes Christie Phoenix ideally suited for command and control centers with distributed operations.

CHRISTIE®



True collaboration and control

Christie® Phoenix® has comprehensive tools for one or many users to simultaneously view, listen to and interact with any source of information found in a control room environment, from virtually anywhere, through a single, robust system.

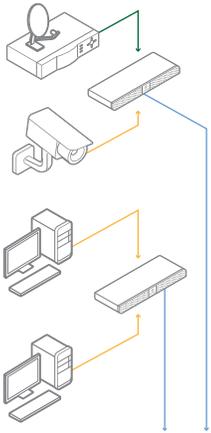
If you can see it, you can access and control your audiovisual data through Christie Phoenix's simple, modular system architecture. The Christie Phoenix system is made up of hardware nodes that each play a specific role. They can be configured as inputs, outputs and as management nodes. When configured as an input node, they capture and encode content from two sources via DVI inputs. When configured as output nodes, they decode and implement display functionality. By grouping Christie Phoenix nodes together using our intuitive web-based management software, you can create perfectly synchronized display walls of up to 128

outputs. When configured as a management node, they can be setup to control and monitor the system. In fact, the Christie Phoenix node is so powerful, a single node can perform all these roles simultaneously.

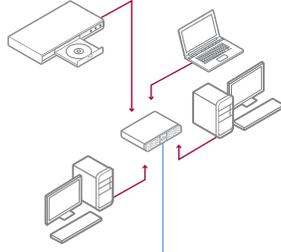
Christie Phoenix is easy to install, configure and control. Based on secure, industry-standard H.264 media encoding and decoding, Christie Phoenix nodes can be quickly discovered and configured into a system using the Christie Phoenix controller wizard and web manager. Simply add inputs and outputs as required. You can upgrade and reconfigure the Christie Phoenix system while it remains live, giving you ultimate flexibility while maintaining critical monitoring activities. Because Christie Phoenix architecture is distributed rather than centralized and concentrated, the system is naturally fault-tolerant.

Main control room

Christie Phoenix input node configuration



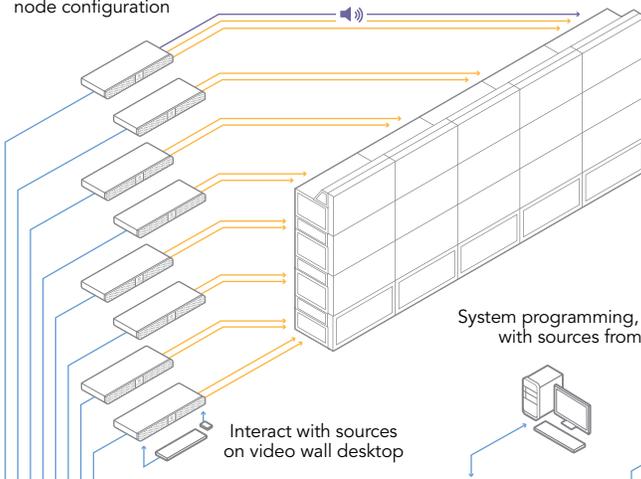
Christie Phoenix Quad-T 4K encoder



AV control system user interface



Christie Phoenix output node configuration



Display wall 1

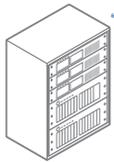
System programming, control and interaction with sources from user workstations

Interact with sources on video wall desktop

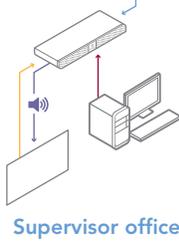


IP network

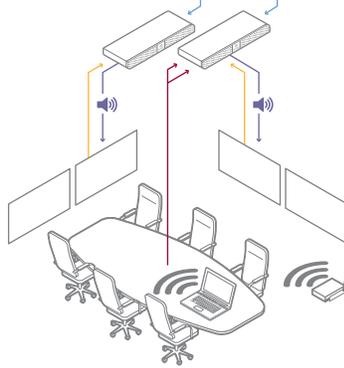
Remote desktop capture VNC protocol



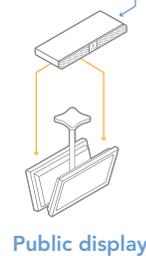
Virtual application server Remote Desktop Protocol (RDP)



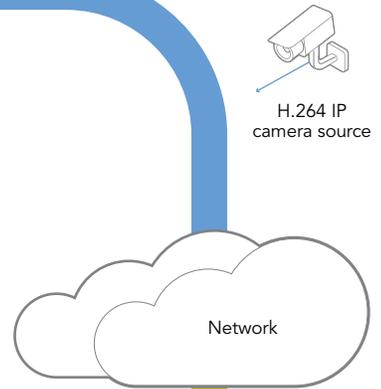
Supervisor office



Meeting room(s)



Public display



H.264 IP camera source

Network

Christie Phoenix nodes applying input and output configuration



H.264 IP camera source

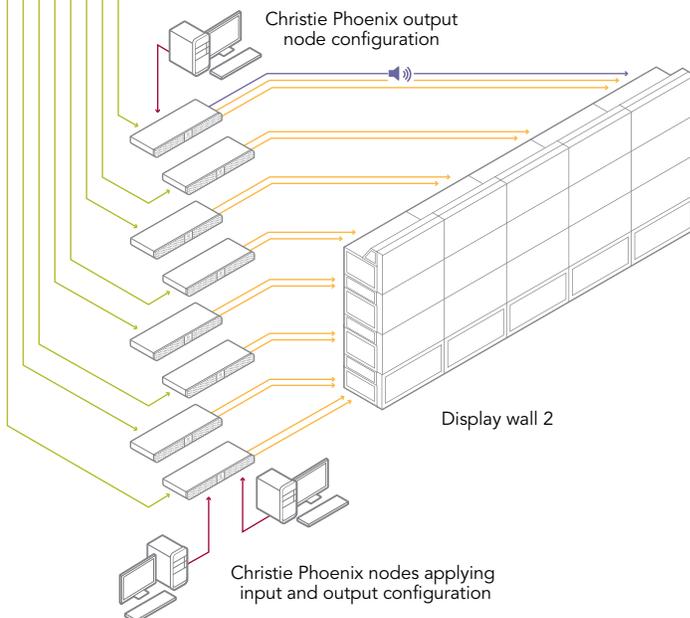
IP network

Control room at collaboration site



System programming, control and interaction with sources from user workstations

Christie Phoenix output node configuration

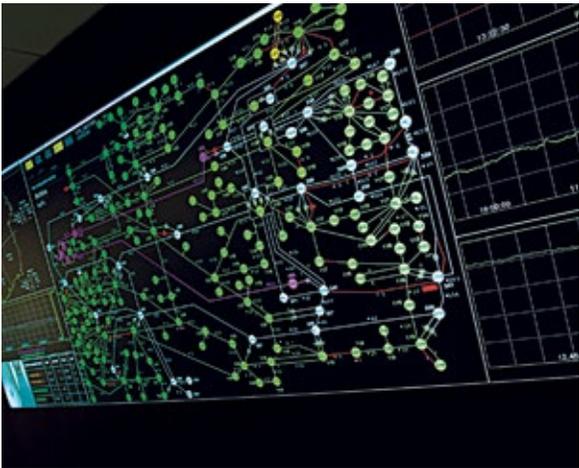


Display wall 2

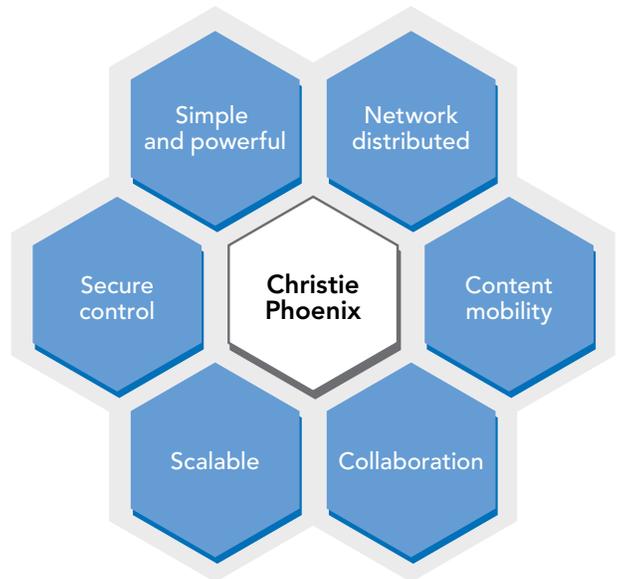
Christie Phoenix nodes applying input and output configuration

Legend

- DVI, USB, audio
- HDMI/DVI, audio
- DVI only
- Audio only
- Network
- Offsite network



- ▲ Christie Phoenix opens a broad range of options for the AV designer, embracing the modern, mobile age of communication and breaking through the physical walls of the control room to encompass a global workplace.
- ▼ Simple, powerful, network-distributed content mobility redefined. Offering secure control, with scalability for any size of application.





◀ Christie Phoenix enables faster and more accurate decision-making through the fluid movement of content from desktop to display wall and back.

Powerful display and stream processing

Each Christie® Phoenix® node has dual inputs capable of capturing and encoding a DVI video input with audio into a high-quality H.264 video stream in real-time. Additionally, Christie Phoenix nodes are paired with a USB HID interface, enabling multi-user soft keyboard and virtual mouse (KVM) control over the network where desired. Once encoded, synchronized video and audio source streams are made available on the network via IP multicast. Sources can also be exported between Phoenix systems using unicast transport.

For virtual environments where a direct DVI signal is not available and relatively static, or where low-motion content is used, Christie Phoenix supports input and transcoding of VNC® and Microsoft® Remote Desktop Protocol (RDP) streaming software from desktop PCs and application servers. This includes full support for soft KVM over a network connection.

Each Christie Phoenix node also has two outputs, capable of driving displays in landscape or portrait orientation in resolutions up to 2560 x 1600. It is possible to decode up to 12 H.264 high-definition streams in real-time, with full scaling and compositing, offering true display flexibility. For 4K/UHD displays featuring multi-input capabilities, two Phoenix nodes can supply synchronized signals to each quadrant of the display.

As a powerful streaming video processor, Christie Phoenix can also handle many network cameras directly without any additional processing, making security and surveillance applications simple and effective.

Scalable: multiple display walls

Perfectly synchronized display walls – from two to 128 outputs – can be easily created by combining Christie Phoenix node outputs and interconnecting the sync to each node with a simple software configuration.

With 128 outputs, Christie Phoenix can present up to 768 unique HD streaming sources on a single display wall. Of course, multiple display walls can be configured in a system, and each can have independent configurations and resolutions. The ability to create and manage multiple display walls is a key advantage of the Christie Phoenix system. Every wall in a Christie Phoenix system can simultaneously display any source with full independent flexibility of position and size.

Easily expandable

Seamlessly expand your monitoring capability by adding additional inputs to your Christie Phoenix with the integration of Christie Phoenix Quad-T, which gives you the ability to add four 4K inputs per unit to a Christie Phoenix system. Built as a stand-alone module, Quad-T units can be installed anywhere they are needed in your Christie Phoenix network to control and encode real-time information sources.

With Christie Phoenix EP, you can embed the same powerful processing of a Phoenix node directly into compatible Christie displays, reducing the need for AV extension and distribution equipment.

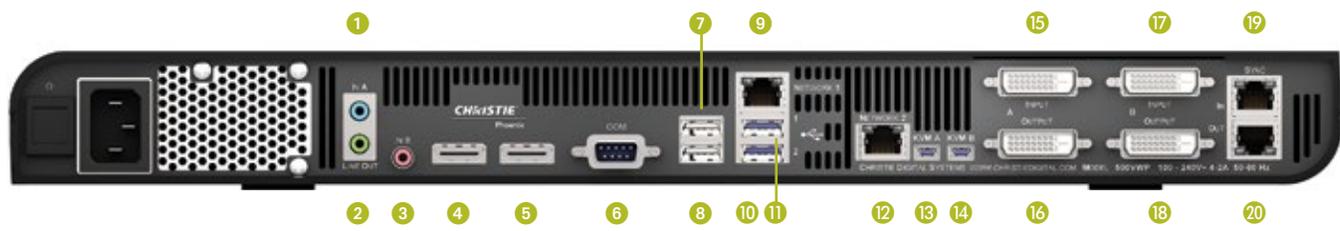
Software for collaboration and control

The intuitive and powerful Christie Phoenix web-based management interface is used to configure its nodes, source and display definitions, user access and system settings. Operating statistics and diagnostic data provide valuable tools for managing the system. The Christie Phoenix web manager makes it straightforward to configure and maintain a Christie Phoenix system efficiently.

Our desktop client software allows the display of any source locally on the user's workstation, without the need for special decoding hardware. A lightweight, modern interface provides the user with the option of seeing only the areas of the system he or she will work with – elements can be quickly brought up, used, and then dismissed without obscuring the entire desktop. All features present on a Christie Phoenix display wall are available on the local desktop, including soft KVM to control AV sources and remote desktops, regardless of origin – DVI, VNC or RDP.

Displaying content either on a local desktop or on a display wall is simply a matter of dragging and dropping from the source pallet to a user's desktop or onto a display wall simulator, respectively. Users can gain KVM control of a source quickly from both application windows.

The browser-based Phoenix Quick Control interface can be easily accessed from a PC, tablet or smartphone. The HTML-based interface allows users to quickly select layouts or change video and audio sources.



- | | | | | |
|-----------------|---------------|---------------|-----------------|------------------------|
| 1 Audio input A | 5 DisplayPort | 9 Ethernet 1 | 13 KVM A | 17 DVI input B |
| 2 Audio output | 6 RS-232 | 10 USB | 14 KVM B | 18 DVI output B |
| 3 Audio input B | 7 USB | 11 USB | 15 DVI input A | 19 Network sync input |
| 4 DisplayPort | 8 USB | 12 Ethernet 2 | 16 DVI output A | 20 Network sync output |

Christie Phoenix features

- System configuration space**
 - Two to 128 outputs per display wall
 - Multiple display walls
 - Two to thousands of inputs
 - Unlimited desktop clients (no licensing)
- Configuration**
 - Simple web-based setup and configuration
 - Distributed: no central point of failure
 - Backup and restore from local disk
 - Setup sources and default behaviors
 - Full system monitoring, including historical data
 - Network readiness indicator provides visual feedback that the programmed network configuration supports multicast traffic
- Network Security**
 - Trusted for use in critical infrastructure monitoring
 - Strong password management
 - Encrypted control
 - Network application port management
 - User access and event logging
 - System data encryption and update protection
 - Threat notification

- Inputs and encoding**
 - Capture SL-DVI to 1920 x 1200 and encode to H.264
 - Capture stereo audio with video
 - Support HDCP inputs such as Blu-ray™
 - Support soft KVM over USB HID connection
- Outputs and decoding**
 - Define and setup display walls via web-based management software and drag and drop configuration
 - Support for:
 - Bezel compensation
 - Display overlap for blended applications
 - Display rotation
 - 12 high definition decodes per Christie® Phoenix® node
 - Window borders and labeling
 - Background image

- Christie Phoenix software**
 - Powerful, intuitive interface
 - Display walls
 - Sources
 - Favorites
 - Layouts
 - Users
 - Organization tools for managing, accessing and searching thousands of sources efficiently
 - Display wall simulator
 - Advanced window management tools
 - Interactive mode with soft KVM support
 - Layout management
 - Christie Phoenix viewer (local display of video)
 - Window borders and title support
 - Soft KVM
 - Audio-only playback
 - Messaging platform with content sharing
 - Login and authentication saved user state
 - Managed user access to displays and sources
 - Quick Control - Enables users to select layouts and change sources quickly from PCs and smart devices
 - Unique layouts for each display array
- Third-party control, APIs and protocols**
 - Full integration API
 - Simplified CLI protocol for control systems and touch panels
 - Integrate event-based control with video management systems



▲ Christie Phoenix completely redefines the control room allowing users to access and control information across multiple platforms and from virtually any location.

Christie Phoenix		
Chassis	<ul style="list-style-type: none"> • 1U form factor • Included rack ears • Optional under table mount • Optional VESA "sandwich" mount 	
Outputs	<ul style="list-style-type: none"> • Dual DVI (digital only): Up to 2560 x 1600 resolution per output • Support for bezel compensation • Support for display overlap • Support for custom resolutions 	
Inputs	<ul style="list-style-type: none"> • Dual DL-DVI (digital only) • From 640 x 480 to 1920 x 1200 encoded to H.264 • Dual 3.5mm stereo audio: Analog stereo audio encoded to AAC-LC • Dual mini-USB: HID device emulation for soft KVM control of inputs 	
Network	<ul style="list-style-type: none"> • Dual Gigabit Ethernet: 100/1000 Mbps Ethernet, RJ-45 connectors • Support for IGMPv2, IPv4, IPv6, RTSP, RTP/UDP, SRTP/UDP, MPEG2-TS/UDP, HTTP, HTTPS, TCP/IP • HTTPS Encryption: TLS 1.2 protocol, 256-bit key, 2048-bit certificate key • ONVIF camera discovery, ONVIF PTZ camera control • Active Directory - server accessed using secure LDAPS 	
Control	<ul style="list-style-type: none"> • Ethernet • Serial RS-232 	
Encoding	<ul style="list-style-type: none"> • Two high-definition DVI inputs to L5 H.264 video streams @ 30Hz • Two stereo audio streams • Support for variable bitrate 	
Decoding	<ul style="list-style-type: none"> • 12 high definition network video streams @ 30Hz • Includes borders and labeling • Up to 20 Mbps per video stream • Direct support for network cameras 	
Transcoding	<ul style="list-style-type: none"> • VNC and RDP streams transcoded to H.264 	
Power	voltage range	• 100-240 VAC (auto-ranging power supply)
	current	• 4-2A (max)
	power consumption	• 220W (max)
	dissipation	• 750 BTU/hr (max)
Dimensions	size	• (WxHxD) 17.40 x 1.74 x 9.5" (442 x 44 x 241mm)
	weight	• 6.5lbs (2.95kg)
Reliability	MTBF	• >50,000 hours of major modules
	MTTR	• <15 minutes
Regulatory	<ul style="list-style-type: none"> • CAN/CSA C22.2 No. 60065 • UL 60065 • IEC 60065 emissions • FCC CFR47, Part 15, Subpart B, Class A - unintentional radiators • EN55103-1 Class A audio, video, audio-visual equipment emission; EN55103-2 audio video, audio-visual equipment immunity; EN61000-3-2, EN61000-3-3 • Directives: (EC) 2011/65/EU (RoHS); 2012/19/EU (WEEE); Regulation (EC) No. 1907/2006 (REACH) • Certification marks (check with Christie for latest update): cULus (Canada & US), CE (EU), CCC (China), GoS-T-R (Russia), KC (Korea), S-Mark (Japan), C-Tick (Australia & New Zealand), Ukraine 	
Manufacturing location	• Designed, manufactured and tested by Christie Digital Systems USA, Inc.'s facility in Phoenix, Arizona, USA	
Warranty	• Limited 2-year parts and labor	

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Printed in Canada on recycled paper. 4298 Oct 16

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