



# CASE STUDY

Contributed by Christie



## SDVoE Performs at Zurich Opera House

Written nearly four centuries ago, *L'incoronazione di Poppea* (The Coronation of Poppaea) remains a highlight in the operatic genre to this day, portraying mankind's vanities, passions, and darker side. The famous Zurich Opera House production also reflects today's selfie-obsessed culture complete with oversized images of the actors projected onto 14 enormous 16 x 9-foot screens on the auditorium's balconies.

### Challenge

"It would have been a huge effort to use monitors or LED walls for the 14 screens," explained Elfried Roller, deputy head of lighting, Zurich Opera House. "We had the idea of projecting the images upright across the balconies, using Christie Boxer 4K projectors in sound-insulated cases. A 1080p feed would have been too little for the individual screens, and so only a native 4K feed was an option."

"It was equally important to provide workflow and confidence monitoring for the technical production staff and director, who needed to see the various shots," Roller added.

### Solution

Christie technology including Christie Boxer 4K projectors and Christie Pandoras Box were already in use at the Zurich Opera House. Christie Terra, with its ability to switch, scale and extend signals of 4K video content, was chosen to complement the Christie infrastructure in taking the already-impressive onstage production of *L'incoronazione di Poppea* to new heights.

Dramatic scenes and large, projected images of actors moving on the catwalk around the orchestra pit were captured on video as part of the pre-production, which could then be displayed in both portrait and landscape mode.

Christie partner, smARTEc, supplied nine Terra transmitters, seven Terra receivers, and two Terra controllers to manage the routing of content from transmitters to receivers. Besides just routing content, the system also takes advantage of the SDVoE platform's multiviewer capability built into Terra to enable confidence monitoring of content. Christie Terra is transmitting the data over 10G Ethernet from Christie Pandoras Box servers and cameras to the Christie projectors, artefact-free, supplying images for the video mapping and stage projection, as well as to the director's preview monitors.

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Christie Terra is based on SDVoE technology (Software Defined Video over Ethernet) and for 'L'incoronazione di Poppea,' a 4K projection solution complete with a media playback and latency-free distribution and extension of 4K/60Hz content was necessary.

The Christie Terra enables latency-free transmission of the native 4K signals (4:4:4 at 60 Hz) and guarantees multiple use of the input signals for confidence viewing. There is no need for a fibre optic crossbar matrix or for re-plugging. "The possibility of productions using multiviewers, projection previews and live cameras makes our work a lot easier," said Roller.

Christie Terra's performance went off without a hitch. "We were very satisfied with the complete solution of Pandoras Box servers, Terra SDVoE-based transmitters and receivers, as well as the Boxer 4K projectors. Receiving everything from one source is very convenient for stage operations, or when we need efficient support for our system," Roller concluded.

The Terra platform provides a highly efficient method for any combination of transmitters and receivers on a network and multi-view confidence monitoring can be easily supported by adding another receiver. Christie Terra is more efficient than traditional fibre switching designs, which require several more outputs supplied to an additional multiviewer device.

## About Christie®

Christie Digital Systems USA Inc. is a global audio and video technology company and a wholly owned subsidiary of Ushio, Inc., Japan (JP: 6925). The company continues to set new standards by launching some of the world's most advanced projectors and display systems. Christie is recognized worldwide as one of the most innovative visual technology companies. From retail displays to Hollywood, mission-critical command centers, to classrooms and training simulators, Christie display solutions and projectors capture the attention of audiences around the world with dynamic and engaging imagery.

## Benefits of SDVoE Technology

SDVoE reaches beyond existing standards to provide benefits no other technology can claim:

- A complete ecosystem – SDVoE Alliance members are manufacturers with expertise in signal distribution, display manufacture, IT infrastructure, chip design and AV software. The integrator has dozens of partners to align with and products to choose from.
- A flexible yet simple software platform – the SDVoE API allows rapid development of highly specialized software, custom-tailored to the needs of a vast array of end users.
- A full OSI stack solution – only SDVoE offers the simplicity of a complete top to bottom solution, fully encompassing infrastructure, transport, processing, and a simple control layer.



For more information about Christie's Terra line of SDVoE solutions, visit [www.christiedigital.com](http://www.christiedigital.com)

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