BIAMP® SYSTEMS
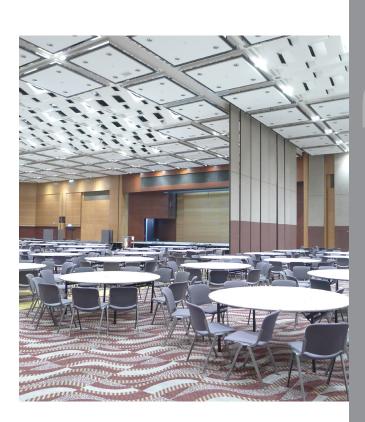
Hong Kong Convention and Exhibition Centre

Hong Kong Convention and Exhibition Centre Installs Urgently Needed DSP System Amidst Packed Event Schedule

Since its opening in 1988, the Hong Kong Convention and Exhibition Centre (HKCEC) is arguably the most iconic building on the island. The HKCEC has been significantly expanded and upgraded since then, and now offers an exhibition space of approximately 89,000 square feet (83,000 square meters), together with 99,000 square feet (92,000 square meters) of rentable, multi-use space.

The convention hall and two theaters are in high demand. The HKCEC's schedule is regularly booked with meetings, shows, banquets, and special events. The convention hall, while interspersed with larger spaces, has smaller function rooms equipped with video conferencing, teleconferencing, satellite links, and simultaneous interpretation in up to eight languages. Much of the original analog equipment is used daily and thanks to regular maintenance is still in perfect working order.

> "We've been using Audia and Nexia® for many years now, and similarly **Tesira® was easy to program and install.**"
>
> *–Roy Lo*
> *China-Tech Engineering Co.*

THE CHALLENGE

Despite the regular maintenance performed on the original analog AV equipment, a recent DSP infrastructure failure necessitated an urgent installation of a new DSP system. Most importantly, the integrator would have to work around the HKCEC's busy schedule. YH Shum, director of the chosen integrator, China-Tech Engineering Company, explains the situation further: "The HKCEC cannot simply cancel booked events or turn away business. While we could have closed the building and completed the installation relatively quickly, we chose to work around the HKCEC's packed diary of events allowing them to honor their commitments to their customers. The installation was simplified by not having to run new cabling."

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SYSTEM SPECIFICS

Components:

Tesira: 1 SERVER-IO, 12 I/O cards consisting of 10 SIC-4 cards and 2 SOC-4 cards, 2 EX-MOD, 3 EOC-4 cards, AmbientSense™ Ambient Noise Compensation; Netgear® GS724 AVB Switch

The 12 I/O cards in the SERVER-IO allow for up to 48 channels of audio input and output such as microphone and line levels, VoIP, and telephone interface. The 10 SIC-4 and two SOC-4 cards provide audio channels that include +48V phantom power, mute, level and signal invert, and full-scale output reference. Tesira's AmbientSense was installed to automatically adjust audio levels in the lobby. The installed sensing microphones detect ambient noise levels in the lobby, and the AmbientSense technology uses an adaptive DSP algorithm to increase or decrease the volume of the music and paging accordingly. This ensures that none of the HKCEC's communications are too loud or too soft. The EX-MOD modular expanders greatly expand the available channels of audio I/O, and can be easily adjusted as HKCEC continues to grow and add functionality to their AV system.

THE SOLUTION

With a system design that seamlessly incorporated modular scalable I/Os, DSPs, and networked endpoints into the existing analog AV system, the bid submitted by China-Tech Engineering Company was approved. Additionally, the digital media backbone of the proposed system exceeds the HKCEC's future-proofing requirements with a provision for up to 420 x 420 digital audio channels.

The solution China-Tech Engineering created used a primary digital media transport. This DSP-based networked media system uses Audio Video Bridging (AVB) to carry media streams over Ethernet networks using existing cabling infrastructure and previously installed analog systems, which significantly reduced the cost to the HKCEC, and the amount of work and time required of China-Tech Engineering.

The HKCEC's new DSP system is rack mounted in the main control room behind the convention hall. Thanks to the system configuration, a partitioned approach made it possible to design and divide portions of the system without affecting existing portions that were working well. For example, the convention hall can be divided into three sections, with each section having customized AV requirements.

The old and the new

E-V CPS amplifiers and a Biamp Tesira Server IO work in harmony. Tesira's ability to connect to existing infrastructure means reduced cost for the end user and less installation time for the integrator.

Audio equipment developed and installed in the 1980s gets a new lease on life thanks to Tesira. Both HKCEC theatres still use equipment installed in 1989 and 2004.

With Biamp Tesira as the primary digital media transport, this DSP-based networked media system solution has united past and present AV networks with full system redundancy, future-proofed flexibility and scalability, and a system of support that is guaranteed.

> With 256 channels and the 420 X 420 channels that Tesira provides,
>
> **it will be more than enough for the needs of our client over the years to come.**
>
> –Roy Lo
> China-Tech Engineering Co

ABOUT BIAMP SYSTEMS

Biamp Systems is a leading provider of innovative, networked media systems that power the world's most sophisticated audio/video installations. The company is recognized worldwide for delivering high-quality products and backing each product with a commitment to exceptional customer service.

The award-winning Biamp product suite includes the Tesira® media system for digital audio networking, Audia® Digital Audio Platform, Nexia® digital signal processors, Sona™ AEC algorithm and Vocia® Networked Public Address and Voice Evacuation System. Each has its own specific feature set that can be customized and integrated in a wide range of applications, including corporate boardrooms, conference centers, performing arts venues, courtrooms, hospitals, transportation hubs, campuses and multi-building facilities.

Founded in 1976, Biamp is headquartered in Beaverton, Oregon, USA, with additional engineering operations in Brisbane, Australia. For more information on Biamp, please visit www.biamp.com.