Case Study: Conference Rooms

Schaeffler Conference Center

The Schaeffler conference center in Herzogenaurach, Germany gains a world-class sound reinforcement and voice evacuation system.

Schaeffler is a leading manufacturer of bearings worldwide and a renowned supplier to the automotive industry. The company has one of the widest product portfolios in the rolling bearing industry, covering nearly all applications. The joint catalog of standard products includes more than 40,000 products, which are supplied to 60 different sectors. They also offer a comprehensive range of services for advice, diagnostics, maintenance and mounting rolling bearings and complete systems. As a forward-looking company, Schaeffler has invested significant amounts in research and development, with more than 1,850 inventions being registered for patents last year.

THE CHALLENGE

Schaeffler wanted a single, sophisticated audio system for all sound reinforcement, including voice evacuation, in their brand new 140m x 40m (approximately 460ft x 130ft) conference center in Herzogenaurach, Germany. More than that, the necessary system cabling needed to be fire retardant like the rest of the building, and the speakers needed to be out of sight so as to maintain the aesthetic design of the building's interior. Franken Lehrmittel Medientechnik Nuremberg in cooperation with FL Medientechnik Munich was selected to install and set up a sophisticated audio system.

> "The system is invisible to the clients, which is what they were looking for.
>
> –*Bernd Schindler,*
> Consultant and Schaeffler Project Lead

THE SOLUTION

Creating a system that contained both the public address and voice evacuation capabilities was the greatest challenge in this project. By combining both AudiaFLEX and Vocia® Networked Public Address and Voice Evacuation System from Biamp Systems, Schaeffler was able to gain an integrated audio solution which could not only support a wide variety of public address and audio-visual applications, but could also be used for emergency paging and voice evacuation.

Vocia was used as a dual sound reinforcement and voice evacuation system with AudiaFLEX providing the routing and control flexibility. As a result of Vocia's decentralized networked architecture, less cabling was required; and given of the sheer size of the conference center, Vocia was also employed as the public address (PA) system. The inherent nature of Vocia's decentralized architecture allowed for the reduction in the amount of cabling needed, since it was not required to run the length back and forth from a central hub to each device on the network. Additionally, since all of the cabling had to be fire retardant (in compliance with EN 54-16), the cabling is far more expensive than regular cabling. The reduced investment in the total amount of cabling required provided significant savings to the overall system cost. This savings enabled an increased investment in higher-end speakers for the project—delivering a superior end-to-end audio solution and upholding the integrity of the interior design.

SYSTEM SPECIFICS

Components:

Vocia®: VA-8600c, ELD-1, VI-6, LSI-16e, CI-1, MS-1, EWS-10, DS-10

Audia®: AudiaFLEX

The whole building is separated into five systems with five smaller technical closures for the distributed amplifiers. Two audio networks were used: one for transporting all public address and background music signals over 13 distributed AudiaFLEX devices, and one for multi-channel Vocia Amplifiers (VA-8600c). The connection between systems contains almost 40 separate background music channels, supported by six Vocia Input (VI-6) devices. All 14 rooms were interconnected with all the other rooms using a total of 430 speakers throughout. Because there were limited CobraNet® cables to route between the microphones and speakers, the system was divided and interconnected with classical audio system setup.

The biggest advantage of utilizing Vocia in this project was the combined features of a public address and sound reinforcement system, as well as a voice evacuation system that meets EN 54-16 certification for Life Safety standards. Other systems would not have been able to provide the same high-quality digital signal processing (DSP) capability and sound quality for the same price and functionality.

> "They have a sound reinforcement system that works reliably everyday, in every space...
>
> –*Bernd Schindler*

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.