Case Study: Government

The Western Australian Industrial Relations Commission Becomes an e-Court Environment

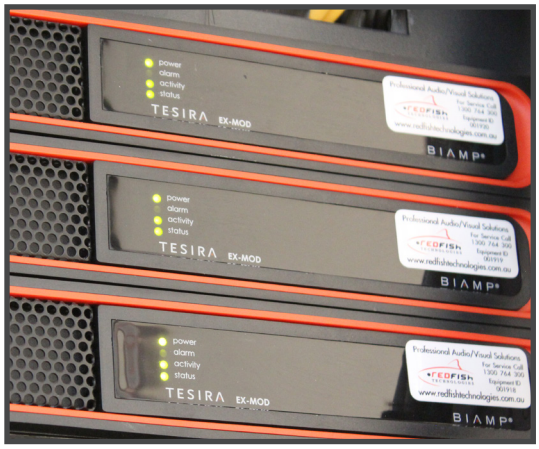
Biamp Systems' Tesira® Transformed the AV Experience at the WAIRC

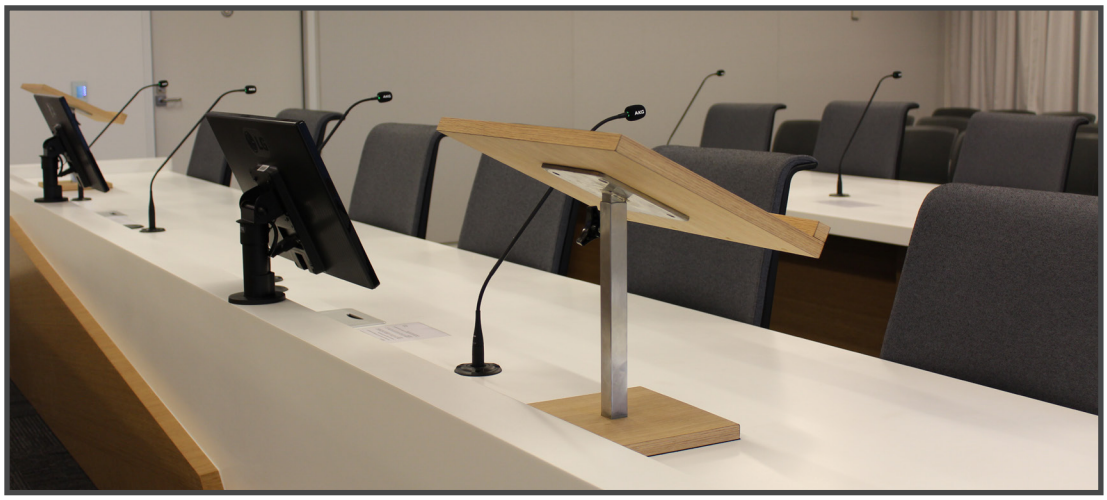
The Department of the Registrar at the Western Australian Industrial Relations Commission (WAIRC) is a public sector department responsible for delivering ethical, transparent, and independent tribunal decisions. The Commission was looking to retrofit its AV environment in order to align its systems with present-day courtroom requirements. This included the creation of new hearing rooms and conference rooms, expanding conferencing capabilities, and centralizing the Commission's recording and monitoring capabilities — allowing staff to seamlessly administrate proceedings while ensuring highly comprehensive audio for all Commission participants. Centered on Biamp Systems' award-winning Tesira® digital signal processing (DSP) platform, the AV solution now easily integrates with third-party systems, provides offsite participation in courtroom appearances, and maximizes the center's investment via future-proofing features such as Audio Video Bridging (AVB/TSN) technology.

THE CHALLENGE

Operating from the eighteenth floor of the Department of the Registrar in Perth, Western Australia, WAIRC had outgrown its AV solution. The Commission needed more efficient system administration capabilities to efficiently run proceedings, improve audio comprehension between users, mitigate the risk of misinterpretations, and integrate existing systems with a solution that would meet their conferencing needs. In retrofitting the entire location, the Department was seeking to future-proof the system while reducing cabling infrastructure to keep costs down. The Department was also creating four new hearing rooms and four new conference rooms, while supporting independent external hearings by outsourcing rooms to third parties.

"Transforming courtrooms and tribunals into e-court environments carries an entirely new set of requirements," said Stuart Herring, Managing Director of Redfish Technologies. "Fueled by innovations such as web streaming, advanced audio DSP capabilities, and telepresence sessions, an entire generation of facilities has begun updating their technology to better reflect the way users collaborate both inside and outside the workplace. Central to these needs is the provision of high-quality audio — especially in legislative environments — where comprehension becomes critical to the effectiveness and accuracy of proceedings. Our challenge in Perth was to update WAIRC's audio distribution and quality requirements, cost-effectively accommodate the need for new technology, and ensure that future integrated systems would remain easy to customize, administer, and use."





SOLUTION

The foundation of WAIRC's revamped e-court is Biamp's award-winning Tesira platform, which allows staff members to manage audio without any complex programming or the need to purchase additional DSP mixers. Part of the company's family of networked media systems, the installation's Tesira SERVER-IO runs both CobraNet® and Dante™ alongside AVB/TSN within a single chassis. As a result, WAIRC can leverage their existing network infrastructure and instantly incorporate AVB-based technologies for forthcoming courtroom recording requirements — future-proofing the entire environment. Enabled by Tesira's flexible configurations, the installation also includes integrated teleconferencing and connection to existing videoconferencing in the new hearing rooms, with enhancements such as acoustic echo cancellation to accommodate the sound dynamics within different settings and speaking levels of participants. The hearing rooms now also feature commissioner alerts, background music during recess, and bench muting with background noise — controlled directly via the intuitive Tesira system.

By migrating to centralized monitoring and control, the Commission was able to integrate next generation digital recording with Liberty Court Recording and Kramer Video Follow Audio systems using Tesira's EX-LOGIC boxes. As a result, each hearing room now contains multiple HD camera angles for more lifelike video conferencing. To further modernize the various areas, the installation features integrated web streaming — allowing any room to begin streaming testimonies quickly, as well as instantly record proceedings on demand. Additionally, WAIRC uses Tesira systems with the Liberty recording systems to provide real time transcription from an off-site service provider. Producing incredibly high-quality audio, the WAIRC's e-court environment has achieved full Class A STI certification.

SYSTEM SPECIFICS

EQUIPMENT:

TESIRA

- **(2) Tesira SERVER-IO**
- **(20) Tesira EX-MOD**
- **(4) Tesira EX-LOGIC**
- **(4) Tesira TEC-1s**

Considered the first AVB/TSN networked audio installation in Western Australia at the time, WAIRC e-court setup consists of two Tesira SERVER-IO; 20 Tesira EX-MOD modular expanders to enable remote placement of input and output capabilities; four Tesira EX-LOGIC devices for the provision of 16 logic GPIO; and four TEC-1 surface-mount remote Ethernet control devices. The Tesira-based system also seamlessly integrates with third-party solutions such as Liberty Court Recording; Kramer Vision systems accurate Video Follow Audio in the recording system; integrated Tesira VoIP teleconferencing and Polycom™ video conferencing; zoned voice lift within the rooms; and Univox hearing assistance. Tesira also facilitated centralized monitoring, recording and control, streaming and on-demand recording, and the ability to incorporate AVB technologies for forthcoming courtroom recording requirements.

CONCLUSION

By turning to Biamp's flagship Tesira commercial audio system, WAIRC has powerfully enhanced the delivery of audio across the entire Department — accommodating both specialized independent hearings and inquiries for the Department's different jurisdictions. Designed to accommodate eventual expansions and future requirements, the center's upgraded hearing rooms and conference rooms now leverage the market's leading audio system to provide more lifelike conferencing to meeting members — enhancing remote participant comprehension by mimicking face-to-face experiences. Easily expanded and customized, Tesira provides advanced audio technology without complicating management for WAIRC staff, or requiring costly peripheral infrastructure.

"The Biamp-based installation has had an immediate impact on the Commission," said Tony Beech, Chief Commissioner of WAIRC. "With excellent-sounding audio integrated into videoconferencing and web delivery, the new environment allows us to operate much more efficiently and prepares us to retain our standards of service well into the next decade. Participants are now enjoying perfect audio comprehension levels while our staff members can easily remotely manage, monitor, and record proceedings — significantly advancing our organization in terms of innovation and program delivery."

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 one with a commitment to exceptional customer service.

Recipient of the Frost & Sullivan 2015 Global Installed Audio Conferencing Enabling Technology Leadership Award, Biamp® is dedicated to creating products that drive the evolution of communication through sound. The award-winning Biamp product suite includes: Tesira® media system for digital audio and video networking, Audia® digital audio platform, Nexia® digital signal processors, Oreno® mobile control software for Tesira-equipped rooms, Devio® collaboration tool for modern workplaces, 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, huddle rooms, 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, and Rochester, New York. For more information on Biamp, please visit www.biamp.com.