



Taking on the courts



Above: Video conferencing facilities are often used in remote witness rooms. This has resulted in easy access to the judicial process.

Left: As the justice system is a specialised market, it is essential for a commercial installer looking to work in this sector to have a thorough understanding of how a court works.

THE TECHNOLOGY INSTALLED IN A COURTROOM OR TRIBUNAL SUPPORTS THE NEEDS OF THE JUDICIARY, COMMUNITY AND VICTIMS DURING A TRIAL OR HEARING. **DIMI KYRIAKOU** FINDS OUT WHAT IS NECESSARY TO ENSURE THE TIMELY ACCESS TO JUSTICE.

Australia's courts and tribunals rely heavily on a range of technologies in order to function effectively and improve service, efficiency and coordination. The justice system is, of course, a specialised market and it is essential for a commercial installer looking to work in this sector to first have a thorough understanding of how a court works.

According to building services consultancy firm Umow Lai, a similar spectrum of technologies can be found in any courtroom, regardless of the jurisdiction.

"Given the size and acoustic

properties of many courtrooms, and the number of people involved in proceedings, all key participants are typically provided with local microphone coverage," Umow Lai associate director Sean Wooster says.

"The placement and management of sound reinforcement speakers is critical to ensure the amount of acoustic energy within the courtroom is focused toward the intended recipients, and to avoid feedback in the system.

"Also, when urgent information needs to be communicated effectively, the tried and tested public address (PA) system is hard to overlook in such a busy operating environment."

Under the 2011 version of the Building Code of Australia, assistance for hearing-impaired users must also be provided to all areas where inbuilt amplification systems are being used. This typically takes the form of either an inductive hearing loop system or infra-red transmission to individual headsets.

Sean also notes that video conferencing facilities have resulted

in easy access to the judicial process. Previously, many court users were disadvantaged through their remote physical location, multicultural background, disability, if they were a victim of a crime or a remote witness, or the fact they may have been in custody.

"The inherent risk of custodial officers responsible for transferring the person-in-custody to and from court has been largely eliminated through the use of video conferencing," Sean says.

"This technology enables court users to access specialist expertise relevant to their case, on a global scale that would have previously been impractical to consider in terms of both timing and cost."

The widespread adoption of video conferencing in courts has also meant that presentation displays, such as LCD panels or projectors, must be provided to mimic the presence of 'visual participants'. The video and audio recording of court proceedings is also undertaken in real time, and archived for future retrieval and reference.



"The audio mix from the courts is fed directly to the court reporter (located either in court or remotely), from which they create a near-real time electronic transcript that can be immediately accessed by those in court for review, or authorised court users after the case over the internet."

Like any installation, the interwoven nature of the technologies needed to deliver the outcomes expected by the courts calls for a certain level of control. Courtroom management systems play a major role in the allocation of courtrooms to daily case lists, as well as integration with digital signage, lighting, HVAC and security. These software solutions also link to smartphones and tablets, allowing for easy authorised access to information online, regardless of the person's location.

AMX is seen as one of the most reliable brands for control technology in courtrooms across Australia, and is well-known for simplifying complex technology in a space that uses a variety of different media.

"We have worked with courts for over 20 years and historically it's always been in a control space," AMX technology director Graham Barrett says.

"In more recent years, we have started to provide systems that incorporate our signal management solutions. We've seen more packages in courts with applications like digital signage, IPTV and Video on Demand."

Touch screen control panels are provided to manage proceedings through the selection of simple, intuitive icons which represent the different modes of operation likely to be required in any court proceeding. Graham explains the TPI touch panel interface units from AMX allow for the use of a third-party touch screen and other components.

"Pretty much every AMX product you can imagine has gone into courtrooms. This includes our NI integrated controllers for centralised control within the courtroom and our Optima and Enova DGX solutions for signal management," he says.

"All of this is managed by our resource management or RMS software solutions, which act as an overlay on all of the courtrooms to ensure maximum uptime."

Given the confidential and sensitive nature of matters under discussion within most courtrooms, careful management is required of not only the acoustic energy, but the wireless spectrum within the court. This ensures that no information is susceptible to eavesdroppers, and the privacy of those within is protected.

To achieve such strict criteria, some design strategies typically adopted in courtroom installations include the exclusion of any RF emitting technologies associated with voice, video or data content.

"The administrators of a courtroom space often put an 'electronic fence' around that court to ensure that none of the information can get in or out. The content is also reticulated and distributed through a Standards-based means," Graham says.

ON THE RIGHT SIDE OF THE LAW

In order to create a solution that meets the needs of the court, the design team (and ultimately, the commercial installer) must keep a number of things in mind.

The pressure to deliver flexible

TRIAL PRESENTATION SOFTWARE

Over the past 10 years there has been a push in the legal field to find a paperless solution for a paper-filled profession.

Falling in line with this trend is TrialPad from Lit Software, an app developer for legal presentations. TrialPad is a legal file management and presentation tool that allows legal personnel to organise and access any document on the iPad.

"Presenting electronically causes everything to move much more efficiently," Lit Software development team member Tara Cheever says.

"When a jury is involved, presenting electronically can help make a difficult-to-understand legal concept much easier. Electronic presentations also allow for better use of demonstrative evidence, when the case warrants it."

In court, TrialPad can be used to access any document and display it before the court. The software allows you to mark up documents and save them, or email them to anyone.

According to Tara, TrialPad was used in the plaintiff's steering committee in Louisiana to manage huge amounts of case information that represented thousands of individual interests tied to the 2010 BP oil spill in the Gulf of Mexico.

"TrialPad can be used in any courtroom that allows the electronic presentation of evidence and it's as secure as your iPad. While having a password on your iPad is important and recommended, should the iPad be lost or stolen, it can be wiped remotely – which is obviously impossible with binders and boxes of paper."

Lit Software has also recently released its second app, TranscriptPad, which allows for the review and annotation of a transcript.

TrialPad for iPad
www.trialpad.com

