

The great debate

Offering itself for ready comparison to other world governments, the Parlimen Malaysia has been equipped with conference and video systems that are the match of any in Europe. **Tim Goodyer** reports



The Dewan Negara (Senate)

HOSTED IN THE CAPITAL CITY

of Kuala Lumpur, Malaysia's Parliament – Parlimen Malaysia – has completed an update of the analogue conference facilities in both of its two Houses with an installation based around a Televic digital conference system. The completed installation involves nearly 400 microphones and covers interpretation and archiving, as well as a comprehensive camera system and displays.

As the discussions and debates that take place in the Dewan Rakyat (House of Representatives) and Dewan Negara (the Senate) are important events that play a part in the country's history, so clarity in audio and video reproduction is regarded as crucial. In addition to supporting the process of government while it is in session, the conference system provides an archive that is available to be used and viewed by audiences around the world.

evidential purposes. DVM's role was to define the integration points for the various subsystems, the element management systems for all the components, and the overall data assurance and integrity. DVM also implemented a Central Management System for Service Level Assurance.

Now completed, the thorough update of the facilities has seen the old analogue audio and video systems replaced with digital systems. As well as providing an improved archive, the greater resolution and clarity of PTZ cameras relays views of debating MPs to multiple display units in the halls. The audio conference system is also digital – the Televic Conference System runs audio transmission between its microphones to the central control unit on Cat5 cables, enabling signal transmission over long distances and a virtually limitless expandability. In both cases, digital transmission helps conserve signal quality and reduce

European Parliament and, together with our partners, we were able to convince Parlimen Malaysia that we have the track record and capability to undertake such an installation.'

'When we conducted the requirement study we found out that we had a bigger task in front of us than we initially anticipated, as subsystems were required to complete the total solution,' he continues. 'As a result, it took us more than six months to complete the study and understand the system installed at the time, before we finally came up with a total solution. We then got the order in September 2008. The installation work started in the Senate in November 2008 as the window available to us meant that we could not do any physical work while the sessions were taking place. We

meanwhile, uses a single ID5500 Interpreter Desk, 10 DCSA5500 Channel Selectors and 123 DML5500 microphones.

In accordance with his role in the parliament, the House Speaker enjoys a higher level of operational privilege from the CML5500 chairman microphone unit. Here, a priority button allows the Speaker to cut off speech from any of the house members should he feel it

indicates the status and activation of respective microphones. Paired with each microphone is a Delegate Loudspeaker Panel. To prevent feedback, the LS5500 mutes when the corresponding microphone is activated. Equipped with a 30W built-in amplifier and internal audio level control, the loudspeaker is capable of reproducing high-quality sound with a broad frequency response, assisting speech intelligibility in the large halls.

Integration

'A lot of effort was put into integration work, as there are many subsystems that are required to interface with the Televic system,' says Mr Boey. 'Besides the Digital Conference System, CCTV cameras need to be in place to provide visuals to accompany the audio. This is then displayed on plasma and projection screens in the House of Representatives and Senate. Additionally, the audio and visual feeds are relayed to the media and to other audio speakers and displays in the building through the PA and SMATV respectively. Transcripts and text are also optionally provided through the Information Display System to synchronise with speeches and quotes when made available.'

The Televic CPU5500 at the heart of each House's system is connected to the Parliament's Local Area Network (LAN) to enable integration with external systems. This includes remote control of multiple pan-tilt-zoom (PTZ) cameras to follow the MP currently speaking; video switching functionality; display of an MP's name or constituency; as well as the conference log and



Delegates' seating in the main house



Some of the 263 Televic DML5500 delegates' microphones in the Dewan Rakyat

completed work in the Senate in February 2009 before the session started in early March 2009. Similarly, the installation at House of Representatives required us to work during the idle period, so we started work in July 2009 and completed in mid-October 2009.'

At the heart of the conference system in each house is the Televic CPU5500 Central Processing Unit. This is capable of networked control and monitoring all aspects of the conference system, including microphone management, simultaneous interpretation functions, foreign language distribution and voting. The System also offers multiple choices of operating modes to suit different conference proceedings.

In addition, the Dewan Rakyat set-up uses two Televic ID5500 Interpreter Desks, 20 DCSA5500 Channel Selectors, 263 DML5500 microphones and a DML2500 microphone. The Dewan Negara,

necessary, leaving only his own microphone live. This is especially useful if a debate threatens to run out of control. A Televic Management Software terminal is also provided to enable the Speaker to view the members of parliament in action, as well as managing any speech requests made by them. The Speaker has the ability to deactivate any active microphones allowing him to control and manage debates. The software also comes with multiple control options, settable by operating technical staff to assist in managing and control of a conference.

Televic also provided long gooseneck microphones for the DML5500 mics, making MPs more comfortable when giving their speeches. The high-sensitivity condenser microphone capsules can pick up sound even across the room. Equipped with a luminous LED ring and button LED, the DML5500 microphone also



The Dewan Rakyat (House of Representati

'The products we use in a particular project are chosen on their technical specifications and complexity of the client's requirements'

Placed in the hands of systems integrator Industronics Berhad together with its technology partner DVM Technology Berhad (DVM), the new system consists of a number of subsystems, each handling a part of the process of a debate. These include both audio and visual functions to support the parliament's proceedings, as well as recording for archive and

noise in transmission.

For Industronics Berhad, the project began in late 2007. 'We proposed a system that is also used in other parliaments because we thought that it would be a great idea to benchmark Malaysia against the European Parliament,' says Chris Boey, who oversaw the project for Industronics Berhad. 'With Televic's involvement in the

session recording in the Multimedia Indexing Minutes (MIM), which are then transcribed into Hansard and made available through the parliament's website. However, the Hansard is only available in the Malaysian national language, Bahasa Malaysia.

The audio feed from the CPU5500 is sent to multiple devices – for the MIM recording, public address and interpretation, as well as to the media's broadcast equipment. An Extron DA 6VE audio splitter is used to distribute conference audio to the existing public address system, which relays it around the building.

The most visible aspects of the installation are the new 65-inch Panasonic TH-65PF10WK plasma screens that have been installed on the wall of the hall to show the MPs in action. A Panasonic PT-D12000E projector has also been provided to show a large image to the front of the hall. To make video transmission straightforward, the video signal is sent to the plasmas via an Adderlink media converter, which converts the source VGA signal for long-distance transmission over Cat5.

The video source is taken from the Samsung SPD-3700T Speed Dome cameras that have been installed. Running at a 550 TV lines resolution the 37x zoom cameras provide a clear and detailed image even at 15m to 20m. Coordinate positions of the cameras are controlled by the AMX NI-700 processor, which is linked via the LAN to an AMX NI-3100 master control processor serving as the master controller. The master controller manages an Extron MAV series switcher to decide which particular video to display to the output. Customised to serve as the bridge between the Televic CPU and the cameras; the AMX control system is programmed to 'intelligently' choose the suitable camera to obtain the best available viewing angle.

As the audio side of the installation has minimum signal latency, a Behringer DSP110 is used to delay audio to compensate for latency in

the video system, restoring audio-video sync.

The audio and video of a parliamentary session are recorded using a custom multimedia indexing minuting system. This is based on a computer system that takes audio and video signals from the cameras and the Televic system, and records the combined proceedings to digital media. The media are stored in a NAS system, and can be recalled by operators to generate the minutes of the session. Complete video-audio feeds are bookmarked based on microphone activation, and can be selected to be replayed at will.

The system also logs attendance and handles electronic voting.



Televic CML5500 chairman microphone units

Programs were developed and installed in servers to handle and manage MPs attendance via a Neteon AFL-12A-LX touchscreen – users only need to touch the screen to have their attendance

registered. Voting sessions can also be initialised, and users only need to select options from the touchscreen in front of them. Voting results are calculated and routed to the plasma and projector displays.

To increase security and validity of the data, attendance and voting can be registered using the Malaysian identification card, MyKad.

'The products we use in a particular project are chosen on their technical specifications and complexity of the client's requirements, as well as our team's ability to interface and integrate these systems into a complete solution,' Mr Boey summarises. The technical installation now serving the Parlimen Malaysia more than bears out his claim.

www.parlimen.gov.my
www.industronics.com.my
www.televic-conference.com

BLACKBIRD

TLA312 Line Array

TLA306 Line Array

TLA308 Line Array

Introducing Australia's only family of Line Arrays...

Graeme Whitehouse
 NORWEST PRODUCTIONS (Australia)
 "Easy to rig, easy to fly, sounds great when it's up there - and easy to pull down..."

Charkit Thordkiet
 LASERWORK (Thailand)
 "Our team is very excited about this system..."

Paul Kelleners
 TWIN TOWNS SERVICES CLUB (Australia)
 "As soon as the Blackbird system was put in it blew anything else we'd been using out of the water..."

at
 PROFESSIONAL
 Acoustic Technologies
 Queensland, Australia
 Phone (617) 3376-4022 | Fax (617) 3376-5793
 Web www.atprofessional.com.au
 Email info@atprofessional.com.au

For more information on the **BLACKBIRD** Line Array System and Acoustic Technologies, visit us online at www.atprofessional.com.au
 * Designed, engineered and manufactured in Brisbane, Australia.

DISTRIBUTORSHIPS AVAILABLE IN SOME COUNTRIES

