

HUNGARY

No competition

Integrating AV technology in a listed building can be a complex task but this independent body makes it look easy, writes **Tom Bradbury**



Each pair of delegates shares an Albiral retractable LCD monitor

IT IS always a challenge for a system integrator to plan and implement modern AV technology in a listed building while making sure that it perfectly integrates into its environment in terms of both function and appearance.

In 2012, the Hungarian Competition Authority decided to convert and restore the lower floor of its old building – originally constructed in 1869. The Competition Authority is an autonomous administrative body, independent of government, with national competence, whose establishment was motivated by the need to protect the freedom and clarity of market competition to encourage economic effectiveness.

The tasks of planning, interior design and technical inspection were performed by architectural studio KROKI, whose associates have been awarded several architectural prizes in the past decade.

As the ground floor of the building was converted, a conference room and two meeting rooms were created, while the Competition Council chamber was also completely

refurbished. Each room now features high-spec AV and conference equipment.

"The goal was to refurbish the ground floor of the building to strengthen the nature of the building, while the technical equipment assists daily work," says Krisztián Tolvaj, commercial director of Galax, the integrator responsible for designing the conference and AV system as well as handling equipment installation.

From a technical point of view, the most complex and at the same time most interesting system can be found in the conference room. The new set-up offers versatility as well as excellent audio, image quality and data transmission while providing complete control over conference proceedings.

Tolvaj worked closely with the planners and interior designers, the associates of the Authority and representatives of the different manufacturers from the initial planning phase to create a system that fulfils the needs of every participant in the conference chain.

"From the very beginning, Galax was supported by Bosch both in the technical and commercial field as Bosch devices were used extensively throughout," says Attila Bárány, wholesale account manager of Robert Bosch's Hungarian subsidiary.

HIDDEN TECHNOLOGY

Thirty delegates can sit around the new oval table in the conference room. To get the most from the table, each pair of delegates shares an Albiral retractable LCD monitor. When these devices are not in use, they can be lowered under a brushed stainless steel cover plate by electric motors, together with the microphones on both sides of the monitor – these constitute parts of the Bosch DCN Next Generation (NG) Conference System.

This solution creates an elegant and streamlined effect that is perfectly in harmony with the interior.

The chairman's monitor is also a touchscreen, so the central PC operating in the studio room can be controlled without any additional devices.

Delegates can ask for permission to speak by pushing the microphone button. The central control unit automatically creates a waiting list in case there are several requests at the same time. The chair or the operator can register those wishing to speak, and they can also interrupt speeches via the priority button. Using their touchscreens, the chair or the operator can grant or withdraw the right to speak as required.

The microphones and the other audio sources are made audible by products from the Bosch Plena range. Clarity of speech is provided by 10 suspended ceiling speakers, while the feedback destroyer suppresses arising frequencies and prevents them from feeding into the system.

Multilingual meetings are also held at the Authority; again the Bosch DCN NG system was chosen to handle interpretation. The system automatically distributes every interpreted language to the headphones connected to the flush-mount channel selectors, situated in front of the monitors.

[ABOUT THE INSTALLER]

■ Galax Kft was founded in Budapest in 1991

■ Its main fields of activity include planning and installing AV and conference systems. The company also specialises in the government and corporate sector

■ Galax is the Hungarian distributor and one of the largest Middle Eastern/European dealers of Bosch conference systems

■ Clients include NATO, Hungarian Atomic Energy Authority, McKinsey & Company, Hungarian Financial Supervisory Authority and several Hungarian ministries

Using digital signalling, the equipment provides CD-quality audio to conference delegates: consequently, they will become less tired during a long conference and will be able to sustain their concentration.

Only the available channels are visible on the channel selector LCD panels, so users need not waste time skipping unused channels to find the desired language.

Interpreters work on the Bosch digital interpreting desk in a soundproof adjacent room, from where they can follow the conference through their monitors and through a window.

CONNECTING TO THE SYSTEM

In addition to the central PC, delegates' own notebooks can also be connected to the sound and display system as well as the office IT network.

Komtech desk connector panels are situated between the monitors, also concealed in the table, encasing the individual cables.

"As products of several manufacturers have been built into the table, it was

SOLUTIONS: HUNGARIAN COMPETITION AUTHORITY, BUDAPEST

important to ensure that they match. We had several discussions with the manufacturers and, thanks to their flexibility, all the devices were produced and delivered in the same silver finish," added Tolvaj.

Hidden in the table are three 8 x 8 Extron matrix switchers, which manage all the sources' video and audio signals and forward them to the chosen display device if needed.

It has also become possible to include visual elements, such as an automated camera system. It has a significant effect on human interactions if we can see the speaker's face and gestures during a conversation – which would not be possible in the case of several delegates due to the seating positions.

Three Bosch cameras have also been installed. When a chairman or delegate mic is activated on the DCN NG conference system, the AutoDome PTZ camera assigned to that position is activated. If there is no active microphone, an overview FlexiDome camera starts operating automatically.

PROJECTION AND CONTROL

As it was a basic requirement to display several sources at the same time, projection equipment was also installed. Due to the Barrisoli light ceilings, the projector could only be incorporated in the side wall at the end of the room. As this is positioned more than 16m from the electric Projecta screen, concealed in the suspended ceiling, a projector and optics that are capable of bridging this distance had to be used.

A Panasonic projector with DLP technology, 6,000 ANSI lumens and an aspect ratio of 16:10, combined with a lens of 52.8-79.5mm focal length, was chosen. The final result is sharp, high-colour fidelity and high-contrast imagery.

The projector, equipped with a liquid cooling system, employs an automatic filter cleaning mechanism and, as a result, requires little maintenance.

The devices are controlled from two Crestron wireless touchscreens; in default mode, one of them is handled by the operator in the neighbouring studio room and the other one is used by the chairman.

"The wireless technology and the wall and table docking stations ensure a high level of freedom for operators of the system as



The Competition Council chamber has been completely refurbished

the various devices can be controlled from practically every point of the room," adds Tolvaj.

The system can manage lighting, electric curtains, microphones, projectors, screens, retractable monitors and sound technology, as well as matrix switchers in order to select the appropriate display equipment for the sources.

Programming and the graphical customisation of the touchscreens was handled by István Kósik, Crestron programmer at AVSYS, a partner company of Galax.

SOFTWARE SUPPORT

In case of computer failure, the central control unit switches back to standalone mode so the meeting or conference can continue. The computer running the applications is connected to the DCN NG system so it has direct connection with the speakers' units, the display and control equipment through the network cable. All conference control functions are focused at one point, which ensures simple and efficient operation.

With the help of Bosch conference software applications, the operator can prepare for the meeting, customising authorisations for each event, organising agenda points, listing speakers, and so on.

Rather than traditional control panels and buttons, a highly intuitive graphic user interface is used. As a result, overall control of individual microphones is easy from the chairman's touchscreen monitor or the Crestron touchscreens.

Speeches can be digitally

recorded using the meeting recorder application, while the Meeting Presenter video client software, developed by MVI Engineering, makes it possible to display any data related to the conference (such as current speakers, request lists and agendas) through XML data feeds to the projector and the monitors.

There is a single delegate database behind all the applications, so the name of the person using each microphone can be assigned to it. In addition to their name, further data can also be assigned to each delegate, such as their country, group or organisation, and a picture.

In practice, when a delegate is given the opportunity to speak, their name is automatically and simultaneously displayed in the top left corner of the camera image, on the touchscreens, in text or tabular form by the video client, and is also attached to the audio file by the recording software.

COUNCIL CHAMBER

A similar system was created for the Competition Council chamber. The difference is that there are no cameras or software control and there is no interpreting technology or Crestron control system here.

A new element, however, is the mechanical monitor lifts: six of these were installed in addition to the electric retractable ones.

The meeting rooms were fitted with 47in Panasonic professional LCD displays, using Komtech desk connector panels also used in the other rooms.

THE NEXT PHASE

"It is worth mentioning that the developments by the Authority are not yet complete as we are now working on the establishment of a digital signage system in the second phase," adds Tolvaj.

In this next development, an Albiral Full HD touchscreen totem will be installed in the waiting hall, which will display announcements by the Authority.

Another display device currently in use is the professional Full HD LED display situated at the entrance, showing the locations of the various organisational units of the Authority in the building.

Content management and scheduling can be performed with a custom-designed application from a remote computer, while the SpinetiX DS media player provides display.

Tolvaj concludes: "The project completely fulfilled the original plans, determined on the basis of high-quality assurance standards; the end result fills me with happiness. The applied audio and visual equipment ensures clear and safe communication, which are both basic requirements of today's conference operation." ■

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[INSTALLED]

AUDIO

- Bosch DCN NG congress system
- Bosch interpretation system
- Bosch DCN-MR meeting recorder
- Bosch PLE-2MA120-EU Plena mixer amplifier
- Bosch LBB1968/00 Plena feedback suppressor
- Bosch LC1-UM06E8 modular ceiling speakers
- Bosch MW1-RX-F2 wireless mic receiver
- Bosch MW1-HTX-F2 wireless handheld mic

VIDEO/DISTRIBUTION

- Albiral 170EJSM16 monitors
- Albiral TS17016 SAW touchscreens
- Albiral 420ITSLIM portrait totem
- Albiral TS420 infrared touchscreen
- SpinetiX HMP130 digital signage player
- Panasonic PT-DW6300EL with ET-DLE350 lens
- Panasonic TH-47LF25 LCD displays
- Samsung ME40A LED display
- Projecta Compact Electrol screen
- Extron MVX 88 VGA A matrix switchers
- Extron SW12 VGA Ars VGA and Stereo audio switchers
- Extron P/2 DA12 VGA and audio distribution amps
- Kramer VP-409 digital scaler
- Komtech AF-T SE-160 desk connector panels
- Extron WPC 150 EU wall plates
- Bosch LTC8100/90 Allegiant matrix switcher
- Bosch VG5-613-CCS AutoDome PTZ cameras
- Bosch VDC-445V03-10S FlexiDome camera
- MVI Engineering Meeting Presenter video-client software

CONTROL

- Crestron AV2 Dual Bus Control System
- Crestron C2ENET-1 Single Port Ethernet Card
- Crestron C2NVEQ-4 control module
- Crestron TPMC-8X-GA lsys touchscreens
- Crestron TPMC-8X-DS and TPMC-8X-DSW docking stations
- Crestron DIN-DALI-2 DIN Rail DALI interface
- Crestron DIN-2MC2 DIN Rail motor control