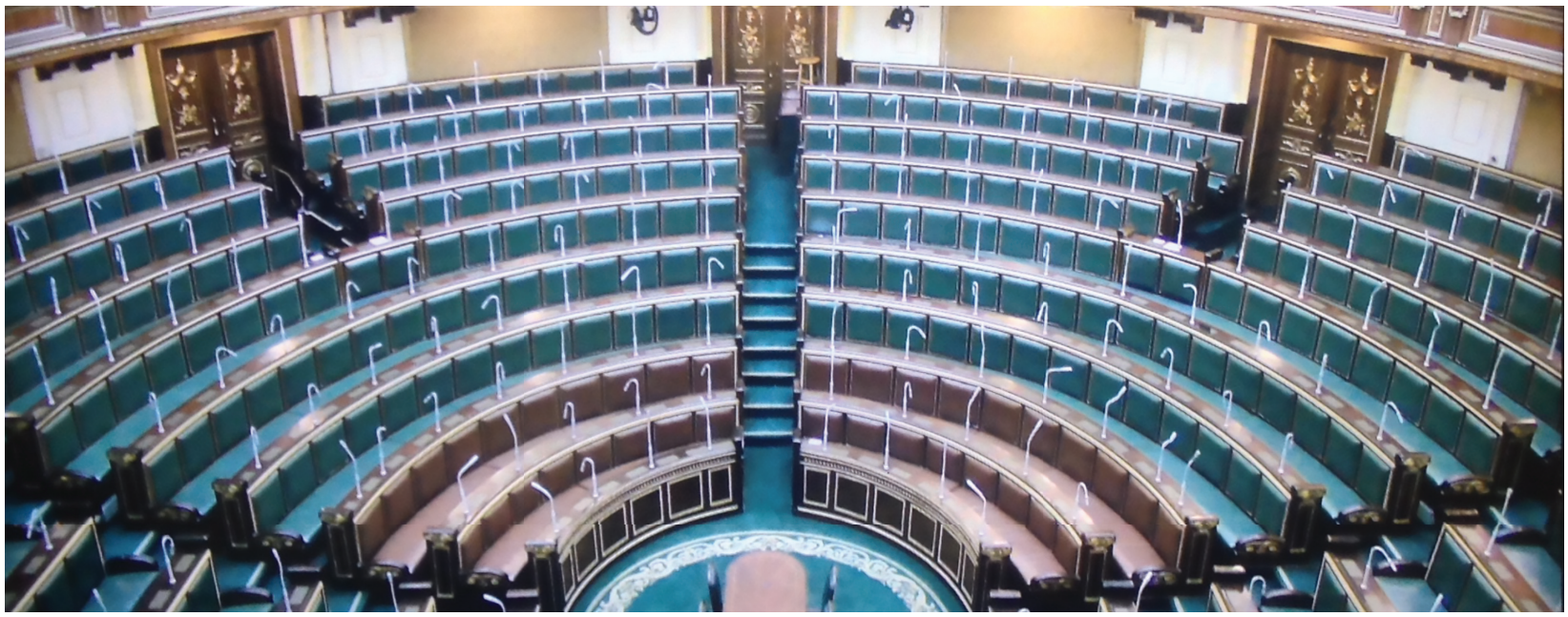
Egypt has undergone huge political turmoil in the last five years, and its parliament building has had to adapt to meet the growing needs of a new government.

Increased majority



When Egypt's new parliament was inaugurated on January 10, 2016, a result of elections held in November and December of 2015, it was the first time in three years the parliament had sat. Its home, the Egyptian People's Assembly in Cairo was built more than 100 years ago and refurbished extensively in 2002. A combination of time passing and changes to the Egyptian constitution has seen integrators Egyptian Engineering Projects (Quality) enlisted to renovate and upgrade the Main Hall. Quality was brought into the job as it had worked with the consultant (actually the government of ministry of communication and information) several times before. Quality was involved in AV projects in 2002 on the original project and again in 2009 when it completed a voting system installation project in the Shura Council (the upper house of the parliament, which was abolished in 2013) building.

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> *- Adel Attia, Quality*

The client contacted Quality because it wanted to add modern voting facilities to become a centre piece of the Main Hall. Added to that, Quality were asked to supply new displays (to view the voting results) and recording systems for both audio and video. "It was called an upgrade, but really it's a new installation," says Adel Attia, owner and managing director, Quality. "We worked closely with the consultant to interpret the parliamentary requirements of the systems required and how they related to products and specifications." Work started in September 2014 with the design phase, with Quality scheduled to hand over the project in April 2015. When Quality began the project it was working on delivering a voting and conference systems for 454 members of parliament. Before the project reached its end date, a decision was made to increase the number of MPs to be more proportional to the number of voters per each parliamentary seat. This meant the project end date was pushed back to the end of 2015 and Quality now had to provide systems for 597 MPs.

The brief from the client to Quality was for an integrated conference voting system, so the voting systems works in tandem with RFiD cards, touchscreens, room control systems and videowalls. Quality chose RFiD card readers so the MPs could register easily upon entering the hall, but also used them to vote with. The RFiD cards also double up as security cards.

To vote an MP has to place his/her RFiD card on to the Brahler conferencing system in front of them. Once everyone has voted the results are shown on an NEC videowall, consisting of 55-in LCD panels, behind the stage on which the chairman sits. This videowall can also be used by >

< each delegate if they want to use any additional materials in a speech, presentation or debate. An intercom system works between the chairman and his assistants. The voting system is linked to the main database of the parliament (via LAN installed by Quality) so it can show information of that particular delegate to the chairman before he gives the MP the right to speak or not. The name is displayed on the chairman's touchscreen, alongside information about that member which has been extracted from the parliament database. To further complicate matters on a technological front, all 600 MPs sit on circular benches, not individual seats. Each seating position also has to cater for a bespoke microphone, designed specifically for the Main Hall, because each speaker has to stand to speak.

Working on a building more than 100 years old anywhere in the world has its problems, as any integrator will attest. And this project, with the Main Hall surrounded by antique wood panelling on all sides, was no different, says Attia. "We had to be very careful where we put cables in the Main Hall. It required a careful design in cooperation with the architect on the project." Was there a good relationship with the architect on this project? "There are always issues between the technical side and the architectural requirements," says Attia. "For example we were already in the middle of designing the conference units when the architect came in said they had to be brown instead of silver, so it match the wood panelling and tables in the room. So we had to change them."

Attia continues: "Due to the historic nature of the building we had to be very careful when installing different parts of the system. The operation of the parliament for recording every session was another challenge." The Egyptian government wanted to record audio and video for every session of parliament, and it wanted to be able to retrieve the information by the subject being discussed or by the name of delegate. Another challenge, once the ability to metatag every piece of audio/video footage was worked out, was to get the recording system to work with the voting and conference system.

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When deciding on AV equipment for this project, Quality often sided with tried and tested products from previous installations said Attia, such as Extron for the signal routing, or NEC for videowalls and touchscreens. "The main choice was the supplier of the conference and voting system, because this is the heart of the job. We went with Brahler. This is the heart of the system, so all the other technology has to work with this." Alongside the NEC displays, 7 Sony PTZ cameras are dotted around the main hall to provide live video.

Audio in the Main Hall is provided by just two Bosch loudspeakers, but again this was an architectural obligation. Two digitally steerable column line arrays were installed behind the main stage. "We wanted to put speakers all around room but the architect rejected that plan. It was more expensive to use such products, but the sound is clear and doesn't interfere with the voting system."

Did the client budget influence the technology chosen in any way? Absolutely not says Attia, pointing to the use of the high-end Bosch line array loudspeakers. "The budget was not an issue, because we try and choose the best of everything, we wanted to chose the most reliable equipment we could."

The final piece of the jigsaw was product training says Attia. Quality spent two weeks training the technicians during the handover of the project, then another two weeks training the MPs how to use the system. Even though each MP has a unit in front of them with just three buttons in order for them to vote, product training was crucial to the success of the system says Attia. And what has the MP reaction to the technology been? "They were very happy. The only issue was whether the displays would relay information in English or Arabic, so it now does both."

Working on one of the biggest projects in Egypt, Attia is rightfully proud of his team of AV engineers and project managers. "This install was a real challenge because we had to use 12 different suppliers and integrate them all, into a reliable system that was easy to use in a historical room with lots of restrictions."

Tech-Spec

Audio

Bosch sound column speakers

Braehler delegate units and mics

Dynacord podium mics and amplifiers

Video

Extron matrix and scalers and converters

NEC 55-in videowall panels and 40-in touchscreen

Sony HD PTZ camera