



**T**he Londoner is described as the world's first 'super boutique' hotel, located at the beating heart of London's prestigious Leicester Square.

This luxurious five-star resort boasts 16 storeys filled to the brim with comprehensive audio and video systems, with six levels extending 30 metres beneath the surface of London. Its scale is astounding with 350 bedrooms, restaurants and lounges, rooftop bars, an underground spa and swimming pool area, two Odeon cinemas as well as the 'crown jewel' of the venue: a 1,000-capacity ballroom with dazzling lighting and projection technologies for a plethora of events.

The Londoner brought on Arup in a consultancy capacity and integrator Visual Systems to install an AV system that compliments the hotel's sprawling art collection and lavish interiors.

Ray Sappal, project director, Visual Systems (part of CP-Partnership), explained: "We knew this was going to be a

special project. We were among a number of people bidding for it and we were honoured to be chosen. The hotel itself is different to a standard five-star hotel: it has a multi-million pound art collection, and the AV technology is important but it's not the key element; it's there to support the interior design and the artwork.

"The hotel wanted the AV to be hidden, discreet and the latest kit available. They also wanted the ballroom to be the best in the country and that's what we aimed to achieve. We had Arup's performance specifications given to us and we developed the finished product with the client's team. We've given them everything that they could need for the future and more."

Type Abraham, commercial development director, Edwardian Hotels, added: "We as a group invest heavily into technology and design, this hotel being our newest member to the group we wanted to have the best, but with the design and finish as the focal point, not the technology. We evaluated various suppliers and

selected Visual Systems to be our partners on this journey. They understood our requirements and objectives for this hotel to be the first and best in its class. I believe we have achieved and gone beyond our initial specification, the installed systems are fantastic with a world class ballroom for any type of event or live performance"

Walking around the interior of the hotel, guests are greeted by intriguing interior sculptures, captivating artwork and art-decoesque interior design. From space to space, visitors are surrounded by a soothing soundscape to compliment the artistic interiors, delivered by a practically invisible audio system which blends seamlessly into the hotel's surroundings. The scale of the hotel is massive, with more than 40,000 metres of AV cabling running throughout the building. The AV system uses the hotel's existing data infrastructure and a number of VLANs were set up to route video and audio via Dante and video-over-IP throughout the building. An AMX control system enables video over IP routing via

## HIGH SOCIETY

Sophisticated artwork and a versatile AV system combine to deliver a one-off experience at the world's first 'super boutique' hotel. **Reece Webb** discovers how comprehensive AV supports the deepest habitable grade commercial building in the world.



It's a unique, one-off hotel and I don't think we're going to see another large hotel built like this in London.

*Ray Sappal, Visual Systems*

AMX SVSI N2400 AV-over-IP boxes, with each floor boasting its own VLAN setup to segregate or incorporate different areas through the AMX control system software.

Sappal clarified: "We have AMX control systems and Extron routing signals with the XTP matrix. The Extron matrix is what ties everything together. We've used the Extron XTP matrix previously on other projects and it was our first choice."

To deliver a seamless audio experience throughout the hotel, Visual Systems installed an extensive collection of Bose products including more than 300 Bose loudspeakers, colour matched to the hotel's ceilings and surroundings to ensure a discreet look. This system extends throughout every space of the venue, from the spa and meeting rooms to the lifts and in-house pub Joshua's Tavern. Most spaces in the hotel are equipped with a Bose VC single zone control panel CC1D to allow for local control of volume by staff due to the large number of zones throughout the building.

Sappal explained: "We've covered the complete Bose range from wall/ceiling speaker to point source sound reinforcement speakers including EdgeMax premium in ceiling speakers. The EdgeMax speakers are mounted at the edge of the ceilings thus leaving the centre of the ceiling clear for lighting design, projecting the sound both downwards and horizontally at a 75-degree angle into the room, meaning you have less speakers

but better coverage. We also installed Bose's new DesignMax range, RMU series, ShowMatch range DS range and the FS range of wall and ceiling speakers."

Bose EdgeMax 90s adorn the reception area and lobby with two in each zone. Moving towards the lobby's staircase, guests are greeted by The Stage, an elevated platform that serves as a lobby bar and live music space. The space is fitted with Bose's EdgeMax 180 with a Bose ControlSpace CC-16 zone control panel and Dante wallplate for musicians to setup DJ equipment or other audio equipment. Additionally, Bose's DesignMax DM2C ceiling speakers were discreetly installed into the lift lobby, extending the sound experience from the hotel lobby to any floor.

The Londoner is also home to a digital signage system, comprised of 11 Samsung 32-in signage displays and three 43-in displays for general wayfinding. Seven Samsung 13-in meeting room booking panels, using Samsung's Magic Info software platform, were also installed. These signage displays are supplemented by ultra slim wall bracket mounts to ensure a flush finish throughout the hotel.

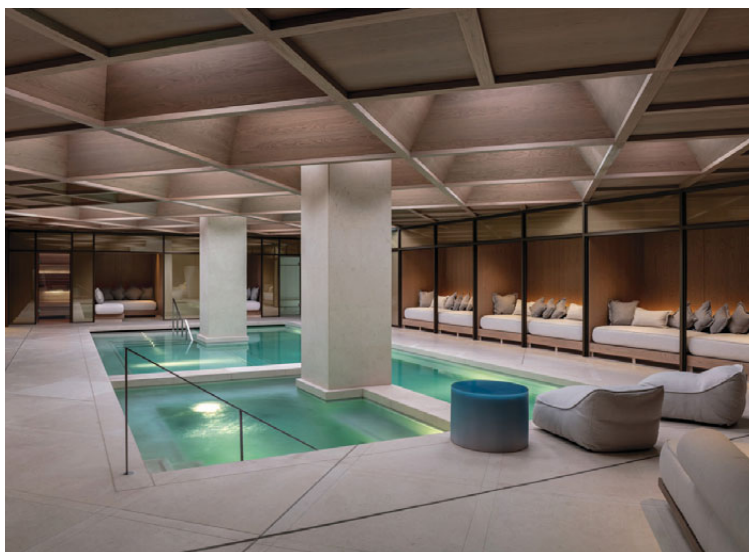
Going up, visitors have a choice of two restaurants and rooftop bars. At the ground floor, Bose EdgeMax speakers support Whitcomb's restaurant with a Pioneer DJ system and CC16 control panel, with an external sound zone for the outside dining area using Bose DS40SE speakers. '8 At The Londoner' is the standout offering, boasting a

rooftop open air fireplace lounge, terrace bar and restaurant. The rooftop fireplace lounge features six Bose DS100SE exterior wall speakers mounted on custom brackets to blend into the wood and foliage surroundings and two Bose MB210 subwoofers hidden within the lounge's seating. An accompanying Pioneer DJ system in custom stand (DJM900 mixer and CDJ2000) and Bose Dante wall plate is also present, discreetly hidden from view in the lounge's architecture for DJs with third party equipment.

Moving into the restaurant, three Bose Dante DJ wall plates are provided for DJ access in the event of parties and private events, working in tandem with the restaurant's seven EdgeMax speakers and CC64 control panel for local control of the various zones and levels.

Bose speakers power each restaurant and bar space, with the exception of the mezzanine Y Bar. The Y Bar is an alluring place to meet for cocktails and light bites, with a light wall by Andrew Rae's comic illustrations which comes to light in the evening with sound via four Ecler lighting track speakers controlled from a Bose CC1D control panel. The Mezzanine level is for hotel residents only which encompasses three areas regardless of the time of day, providing an area to experience art and relaxation.

The three areas include The Drawing Room, which is a contemporary take on the comforts of the classic British living room, featuring a hand



painted mural by New York based artist En Viu and supported by four Bose EdgeMax 90 ceiling speakers with a CC1D control panel. The final area on the Mezzanine is 'The Whiskey Room' which holds a range of liquor from the renowned to the incredibly rare and is entered through a secret door through the bathroom. A sumptuous interior, with mirrored walls and ceiling, provides an intimate feel and sound is replayed through two inwall Bose 891 virtually invisible speakers and controlled via a Bose CC1D control panel.

On Basement level one is the Green Room, a multi-purpose area which can be used for afternoon tea by day and a private bar by evening with a nightclub feel. This experience is created with a Bose PA, with three MB210 subs, two RMU106 hidden out of sight within the mirrored ceiling bulkhead and two RMU208 speakers visible to provide low level sound during the day time and higher levels in the evening. Two DJ input plates are located near the dance floor area and a Pioneer CDJ DJ system is housed in a custom stand.

### The crown jewel

Like many leading luxury hotels, The Londoner is home to a vast ballroom space that offers the hotel the ability to generate income through event hosting. Clocking in at 16 metres wide with a solid audio system, cutting-edge projection technology and an all-encompassing lighting system. It can be divided into two individual spaces to host two

events simultaneously via a Skyfold partition system.

Sappal explained: "The ballroom is the key feature of the hotel. We believe it has the best AV system installed in a hotel in London. All audio in the hotel is routed via Dante. We can route the ballroom functions to the meeting rooms via the video-over-IP system, enabling overflows. The system can also be routed around the rest of the building for virtual and hybrid events. We've kitted it out so it can be used to generate income without relying on rental companies to bring equipment in."

The space is dominated by four Christie D16WU-HS laser phosphor projectors suspended from the ceiling, projecting 16,000 lumens onto four large format tab tensioned ScreenLine projection screens (two 5.5m wide side by side and two 6.2m wide on either end of the ballroom).

Sound reinforcement is provided by Bose's ShowMatch line arrays for large events and RoomMatch RMU208 & MB210 loudspeakers for delay or day-to-day presentation. The ShowMatch speakers are powered by Powersoft X8 and T304 amplifiers, with an additional three Bose 8500N amplifiers for presentation use. For the hard of hearing, a Sennheiser MobileConnect system has been installed with a Sennheiser infrared system, allowing for additional accessibility in the space. Additionally, Sennheiser D6000 microphones are provided to allow for wireless communications



throughout the space for a variety of events with routing controlled from the AMX control system.

The ballroom space is also home to a portable system for virtual and hybrid events, consisting of an Analog Way pulse 4K presentation switcher, a Panasonic PTZ camera controller and a Blackmagic Smartview 4K monitor. Six Panasonic AW-HE40SKEJ9 HD SDI cameras are also present, mounted on custom Unicol swing wall brackets to allow the cameras to discreetly be hidden when not in use.

Ray Sappal: "All the lights/trusses and speakers are on Lodestar D8+ motors with loadcells so that they can be lowered and moved around accordingly. The trusses also allow third-party equipment to be suspended for events.

"We've also got a ClearCom talkback system for larger events, an AMX NX-3200 processor for the control system including two 10-in G5 touch panels wall mounted within each section of the Ballroom and an iPad control option for the AV manager. The AMX video-over-IP system streams signals from the ballroom around to other areas of the hotel as well as to external sources. We also put in redundancy in the ballroom, all the trusses have got not just lighting cables, but network, audio, four port DMX node, two patchable DMX lines and speaker cables, ready for any kind of event. If someone brings in an external speaker that they want mounted on a truss, they don't need to run cables, everything's already pre-wired."

We have a fully engineered solution above any of our competition which I believe will help us win more business.

*Emanuel Tulan, Londoner Hotel*



### Kit List

<b>Audio</b>	presenter, Hyperdeck studio mini
Bose EdgeMax, RoomMatch, FreeSpace, DesignMax, ShowMatch and 891 in-wall loudspeakers; MB210 subwoofers; PowerMatch amplifiers; ControlSpace DSPs; VC single zone control 1CCD, CC-16 and CC-64 control points; Dante DJ wall point	Christie D16WU-HS laser projectors Logitech Rally VC Plus system Martin Mac Aura XB wash luminaires, ERA 400 profile luminaires, ELP CL with 15-30 degrees lens
ClearCom Talkback system with beltpacks	Panasonic AW-HE40SKEJ9 HD SDI cameras, PTZ camera controller
Pioneer DJ system Powersoft X8 and T304 amplifiers	Samsung QM98 4K displays, 32-in and 13-in displays, signage software license
Sennheiser MobileConnect, D6000 wired microphones, SpeechLine wireless microphone system	ScreenLine electric 5.5m projection and 6.2m projection screens,
Sonance Extreme speakers	Unicol projector bracket and mount, custom swing wall bracket, Vertislide custom wall mount
Yamaha QL5 and QL1 mixing consoles, Rio 1608D stage boxes	<b>Control</b> AMX NX-3200 VoIP box, NX-3200 central processor, room control system, NetLinX processor, G5 touch control unit
<b>Video &amp; Lighting</b>	Extron XTP2 matrix, XTP transmitters and receivers
Analog Way pulse 4K presentation switcher	
Apple TV	
Barco Clickshare CSE-200 system	
Blackmagic Smartview 4K monitor, web	

The ballroom presented a significant challenge for Visual Systems, handling a complex and expansive system integration within the constraints of servicing and cabling difficulties. Sappal explained: "The ballroom was a challenge in itself. We worked on the model with the client and what was installed didn't match the model because there were so many more services in the ceiling void that had to go in. We had to get the cables around the ballroom, both high level and low level, to facility panels. We also had to work out where the trusses had to be mounted to allow the motors to be installed before the ceiling went in. We had to be precise, within millimetres, to get the motors mounted before the ceiling supports went in."

There are also broadcast Lemo 3K.93C points within the ballroom which are cabled back to two OB racks in the loading bay via the MCR for broadcasters to connect directly into the ballroom system. The MCR is located above the ballroom and is where the ballroom is controlled from with all equipment housed in five racks to accommodate all source, control, routing, video, audio, broadcast and lighting hardware.

Emanuel Tulan, audio visual and production manager, Londoner Hotel, added: "I am so pleased with the design. Visual Systems have thought about all the possible uses that the various spaces within the hotel could be used for and allowed for redundancy and backup routes in case of hardware failure during a live event or broadcast. We have a fully engineered solution above any of our competition which I believe will help us win more business and for me personally a lot of great tech to play with!"

### Below the surface

Seven client facing meeting rooms are present on the lower levels, linked to the ballroom for conferences and other events. Samsung QM98 displays, mounted on custom width Unicol Vertislide wall mounts dominate the space, with videoconferencing functions provided via a Logitech Rally VC Plus system with AMX control (G5 touch control wall mounted panel and NetLinX

processor). The meeting rooms include Apple TV, Barco Clickshare CSE-200 systems, HDMI as well as Samsung 13-in displays serving as a room booking display outside each meeting room. Audio is handled by Bose's EdgeMax ceiling speakers, cutting down the number of speakers needed in the room by projecting audio downwards and horizontally at 75-degree angles. Each meeting room is equipped with a Symetrix x10 Bluetooth unit for local music or podcast playback. Two EdgeMax speakers are used in each space, with the two largest meeting rooms featuring Sennheiser Speechline microphone systems to accommodate larger audiences.

The meeting room pre function area has six Bose EdgeMax speakers with a local Dante Symetrix x10 bluetooth unit and local DJ input plate for events, controlled from either local Bose CC16 control panel or from the client's AMX iPad control.

Going down to the hotel's lower levels, guests are greeted by an expansive wellness centre consisting of a gym, salon and a luxurious spa/sauna. While the swimming pool area is home to six Bose EdgeMax ceiling speakers, all colour matched to the wood panelling, the sauna and steam room required the installation of heat-resistant and waterproof speakers. Sonance Extreme Marine speakers were installed in the sauna and a Sonance Extreme environmental speaker was selected for the steam room.

Sappal added: "The pool's not as warm, but the sauna and the steam room have extreme temperatures, so Sonance speakers were the only ones that would work."

On Basement level 5 is the back of house area where the hotel's kitchens, staff changing rooms, canteen and offices are located. We installed a music system into the staff changing rooms, WC's and canteen area. We also installed two staff meeting rooms with Samsung QM98 displays, Logitech VC Rally System and AMX control with Apple TV and Barco Clickshare.

Undertaken from 2019 to 2021,

this project was, of course, not without disruption. Delays caused by Covid-19 affected the timeline of the project, but also allowed extra breathing space for the team, granting additional time for the custom RAL-matched speakers to be delivered in time. Sappal: "Despite Covid, the project didn't stop. We had supply issues with equipment which was a major element that delayed the project. The other major issue was that we only had a performance specification, we had to develop the complete install package. We designed the cable containment, the power and the infrastructure required for the AV element that went into the various areas. Getting that right was a key part of our job on this project so that everything else could flow in."

Ashwin Shah, chairman, Myriad Audio Visual (part of CP-Partnership) said: "It was an honour to have been selected to be part of the team working on this project, I feel we have provided the client with a complete working solution and to see the finished product from the initial renders is breathtaking. This is definitely a hotel in its own class."

With the project completed to the client's specification, Visual Systems is responsible for the service and maintenance of the AV systems at The Londoner, with the hotel's AV team covering the basic setup and management of the system day-to-day. Alan Macdonald, managing director CP-Partnership, explained:

"This is a great project for the group. Our group companies are also booked to do some of the first large scale events at The Londoner so for a client we can provide the complete end-to-end service. I feel this will be the hotel venue of choice for large scale events in the near future and a showcase for our group."

Sappal closed: "You haven't got many new build hotels of this size in London. Winning the project was an honour for us. Being trusted to deliver the system and seeing the finished product working is the joy of projects like this. It's a unique, one-off hotel and I don't think we're going to see another large hotel built like this in London for some time." 🌐