



Image Source: en.wikipedia.org

LIGHTWARE POWERS AV TRANSFORMATION AT AL MAWADDAH MOSQUE, SINGAPORE

Market

House of Worship

Country

Singapore

Lightware Equipment Used in Project

GVN-HDMI-RX110AP | GVN-HDMI-TX210AP | GVN-MMU-X100

AL MAWADDAH MOSQUE ADOPTS ADVANCED AV-OVER-IP TECHNOLOGY FOR SEAMLESS, SITE-WIDE CONNECTIVITY. WITH LIGHTWARE SOLUTIONS AT ITS CORE, THIS AWARD-WINNING PROJECT SHOWS HOW MODERN AV CAN ENHANCE TRADITION WITHOUT COMPROMISE.

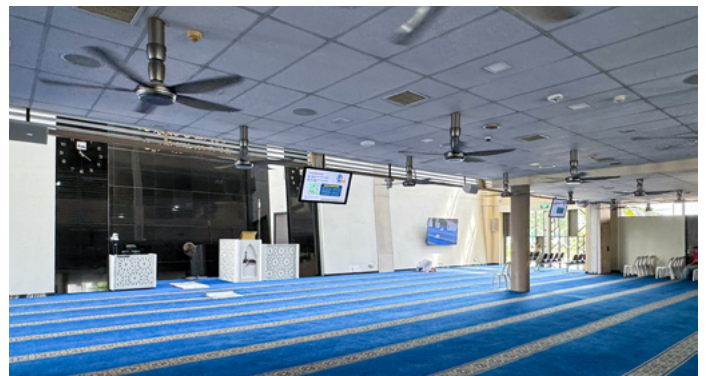


The House of Worship sector is rapidly embracing network-based AV solutions, and **Al Mawaddah Mosque** is a shining example. **Completed by PAVE System**, the installation clinched the House of Worship Project Award at the **Inavate APAC Awards 2025**, with Lightware's technology at the heart of the project's success. The project was recently published [as a case study](#) by Inavate APAC.

"The initial design was based on traditional matrix switching, with the rooms being designed with 4 by 4, 8 by 8, or 16 by 16 switchers as needed", explains Jeffrey Lim, managing director at PAVE System. *"There was a requirement for the spaces to be linked together, and this was achieved with traditional matrix switching."*

"When we reviewed the initial design, we actually reached out to the consultant, CCW, to ask and propose whether a network-based AV-over-IP solution would be something they would consider, and they were open to it. Because of that openness and our collaboration, the project moved forward with a design based on a networked solution. Our understanding was that the client wanted to be able to route AV sources to various locations, particularly from the wedding hall and the main hall, and AV over IP is perfect for such applications."

While the AV professionals agreed about leveraging the capabilities of AV-over-IP, switching to a network-based system can sometimes come with an increased price tag. Therefore, some consideration and evaluation were needed before committing to the new system design. *"We did a quick cost evaluation, considering the number of rooms, the different features required, and the need to enable source switching,"* continues Lim. *"Overall, we realised that once you reach a certain level of interconnectivity, AV-over-IP tends to be the more cost-effective solution."*



The AV-over-IP system at Al Mawaddah Mosque is powered by a robust network of Lightware products, including **35 GVN-HDMI-RX110AP receivers**, **13 GVN-HDMI-TX210AP transmitters** and a **GVN-MMU-X100 network management unit**, ensuring reliable performance across the entire facility.

"We chose Lightware mainly because, after learning about their solutions and their IP capabilities, we found their system to be quite straightforward to configure and use," explains Lim. *"They also provide a network management processor to assist us with configuring signal and source switching."*

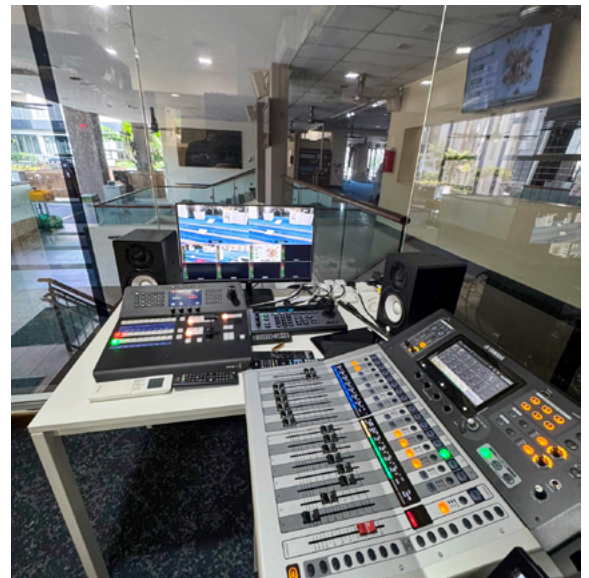


The mosque's main hall features two Aver PTZ cameras and primarily receives presentations from laptops. **The AV system supports streaming** not only to the main hall but also in the wedding rooms and other spaces, as well as outdoor areas, including the car park. Visual displays, including two LG 98-inch flat panel displays, supplemented by differently sized flat panel displays where necessary, also receive the video signals managed by the **Lightware GVN solution**.

Day-to-day control is simplified through the use of an iPad as a mobile control interface. ***"Because the mosque is quite a large premise, the iPad allows users to move around and verify that the source switching matches what they see on site,"*** says Lim. ***"This interface is intuitive enough for volunteer staff, but we also programmed a more advanced control layer for tech-savvy users."***

AV-over-IP was an inspired choice by the integrator and consultant as it has helped address challenges due to the sheer scale of the mosque. ***"The mosque is four storeys high, and it is quite large,"*** Lim confirms. ***"Even with AV-over-IP and the cable runs, we had to create a main network and sub-networks to get the signals to all the spaces and stream content. It was a challenge to get the AV systems done. At the same time, the mosque did not stop serving its congregation during this upgrade. We had to work with the hours that the mosque specified and, of course, stop all work well before it was time for prayers. It was helpful that the Lightware system was easy to deploy and configure."***

An additional challenge arose mid-project with a request to stream services to platforms like Facebook and YouTube. The team integrated Blackmagic equipment and a vision mixer to accommodate this expanded scope.



On the audio side, careful planning from CCW ensured the loudspeaker integration ran smoothly. Bose column loudspeakers were installed in the main hall, whilst ceiling loudspeakers with distributed zones managed sound across other areas. Audio distribution leveraged Dante networking protocols. **Sennheiser microphones** were selected for their quality and the vendor's willingness to provide extended warranty coverage, a key client requirement.



"We needed to complete this project by February 2025 without any downtime for the mosque," explains Lim. ***"Around the specified deadline, the mosque had key events both religious and communal in nature, so the work had to be completed, and we are happy to report that everything was completed on time. Our team were present for the scheduled events and even supported the mosque with our expertise to execute them."***



Looking ahead, the Lightware-powered AV-over-IP system has put the mosque in a great position to leverage the scalability of its new technical infrastructure.



Reflecting on the project, Lim concludes: ***“This is a special project for us for two reasons. Firstly, the ambition of the consultant and the end user to be willing to implement AV-over-IP in a house of worship. The spaces usually default to traditional solutions, but as you can see, modern solutions can do the job just as well, if not better and in a more cost-effective manner. Secondly, some of the members of the congregation of this mosque are AV professionals themselves. Therefore, we felt the pressure to make sure that we delivered as we knew our work would be under stricter scrutiny!”***

Read the full article at Inavate APAC’s website here: inavateapac.com/case-studies/article/al-mawaddah-mosque-singapore

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