

Lawo AoIP-Technology for Muscat TV



Oman's Ministry of Information, also known as Oman TV, has unveiled a groundbreaking project that transforms its central theater into a hybrid space, merging live event capabilities with full broadcast functionality. Central to this transformation is a state-of-the-art audio infrastructure powered by Lawo's cutting-edge IP-based solutions. The project reflects Oman TV's commitment to innovation, addressing the dual demands of live performances and seamless integration with its 20 studios that support five national channels. This hybrid functionality positions the theater as a versatile facility, capable of linking with other studios for real-time signal sharing while supporting live broadcasts and in-house events.

The central theater posed unique challenges, as traditional auditorium designs rarely include broadcast-grade redundancy. Oman TV envisioned a facility that would function as an additional broadcast studio, enabling seamless transmission of signals in and out of the building. To meet these demands without compromising performance or reliability, the system required a robust IP networking infrastructure.

Pixel Solutions, the Muscat-based systems integrator, collaborated closely with Lawo to tackle these challenges. "This was a remarkable project for us," says Anas Alkurdi, CEO of Pixel Solutions. "Lawo's solutions and expertise helped us design a system that exceeds Oman TV's exacting standards, while our team gained invaluable experience in broadcast audio systems."

At the heart of the theater's audio infrastructure is a Lawo mc²56 MkIII audio production console with 32 faders, paired with an A__UHD Core audio engine. Together, they provide an unparalleled level of flexibility and processing power, with the ability to handle more than 1,000 DSP channels. This setup enables engineers to manage the in-house audio mix for live events while also controlling signals for broadcast distribution. The console seamlessly handles over 100 audio inputs and outputs, ensuring smooth routing and reliable performance for both applications.



Complementing this setup are several additional Lawo solutions. Two A_stage64 stageboxes ensure seamless audio signal connectivity across the venue and beyond, adhering to ST2110 standards for pristine sound and robust resilience. Lawo's HOME management platform offers centralized and intuitive management of all connected devices, streamlining operations in the hybrid production environment.

In addition to the broadcast audio system, the central theater features a sophisticated AVL installation designed to enhance the audience experience. A striking 11m x 5m LED video wall from LEDman dominates the stage backdrop, the largest of its kind in Oman. The lighting setup includes over 60 Prolights fixtures, expertly installed in a challenging space with undulating ceilings accessible only by hidden catwalks. Audio coverage is powered by Bose Professional ArenaMatch AM10 loudspeakers and ShowMatch SMS118 subwoofers, configured for precise sound performance in collaboration with Bose's design team.

The venue also features commentary and translation booths equipped with Studio Technologies solutions, such as the Model 214A announcer's console and Model 348 intercom station. These systems were smoothly integrated with the Lawo infrastructure using standard protocols, demonstrating the adaptability of the overall design.

The adoption of Lawo's IP-based technology delivers significant advantages to Oman TV. The system's robust redundancy ensures uninterrupted operations, critical for live broadcasting, while its modular design offers scalability for future expansions. The intuitive interface of the HOME platform simplifies workflows, reducing setup time and operator training needs. Additionally, the seamless integration of Lawo equipment with third-party systems, such as Bose and Studio Technologies, highlights the flexibility and reliability of the solution.

The success of the central theater project has positioned Oman TV at the forefront of broadcast innovation in the region. Operators have expressed enthusiasm for the system's performance, and discussions are already underway to extend Lawo's technology across Oman TV's broader infrastructure. "This project has laid a solid foundation for future advancements in Oman's broadcast industry," says Alkurdi. "It is a testament to how local expertise and global technology can come together to achieve remarkable outcomes."

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