CURATING IMMERSIVE EXHIBITIONS

Al Shindagha Museum

Bringing the History of Dubai to Life with Q-SYS

Al Shindagha, Dubai

Located in the historic neighbourhood of Al Shindagha, the aptly named Al Shindagha Museum is the UAE's largest open-air heritage museum. It comprises 22 houses that were once home to real Emirati families, with the Al Maktoum Residence being the ancestral home of Dubai's ruling family.

With the help of Q-SYS, these homes have been tactfully refurbished to create a collection of fully interactive, immersive, and informative exhibitions. Visitors are treated to a unique insight into the vibrant history of Dubai, its traditions, and its people.

By building a harmonious co-existence of traditional architecture and modern-day scenography, the museum aims to educate visitors about Dubai's past, whilst also showcasing contemporatry Emirati life and the possibilities for Dubai's future.
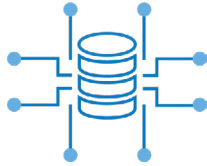
> "The museum's audio system had to cover paging, call to prayer and exhibit needs. Q-SYS gave us the ability to adjust each section individually, so everything could be integrated in one."

Éric Cyr
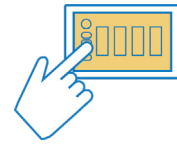*Founder & Principal Partner, XYZ Technologies*

Challenges

Multi-Zone Audio
To provide the unique experiences offered at the museum, separate audio zones were required so that all of the museum's audio needs could be delivered simultaneously.

Demanding Physical Environment
The museum's archaic, coral-cladded houses and unique layout, as well as Dubai's harsh temperatures, meant loudspeaker choice and placement had to be considered carefully.
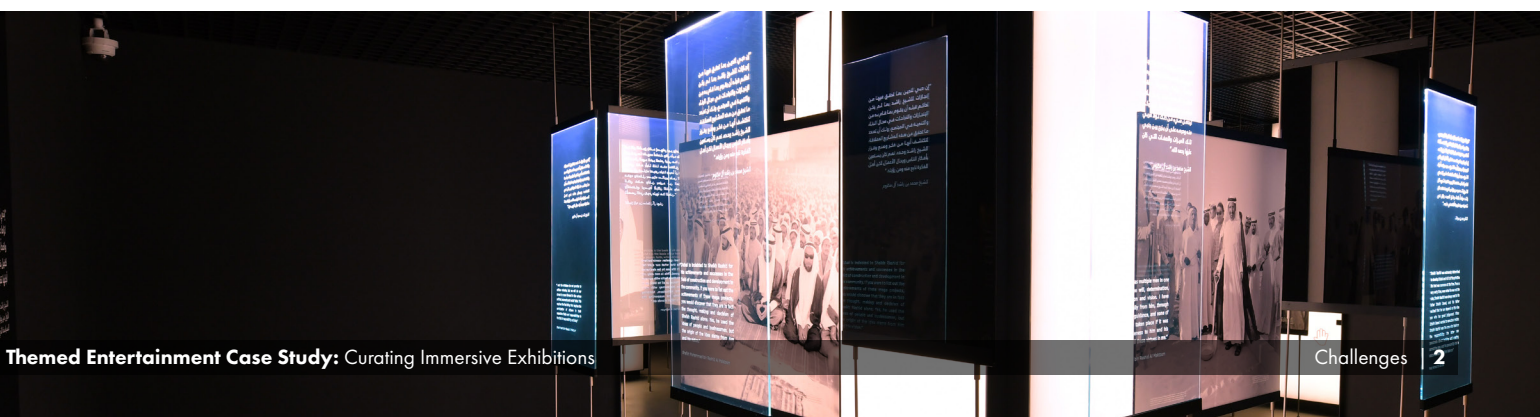
Monitoring & Management
Site engineers needed the option to easily manage audio levels in all parts of the museum from a centralized point.

Connecting the Past to the Present

The audiovisual system required by the museum needed to not only deliver masterfully curated soundscapes, transporting visitors back to Dubai's foundation, it also needed to handle paging and call to prayer. It had to be robust and flexible enough to manage multiple audio zones and deliver all these needs simultaneously.

When it came to integrating such a system into the museum's antique buildings, many challenges arose for integrator XYZ Technologies. "The Al Shindagha Museum is very particular because all the houses are made of coral, so we had to be considerate of the architecture," explains Éric Cyr, founder and principal partner at XYZ Technologies. The unique layout of the museum meant that careful attention was needed for loudspeaker placement. Éric continues, "One challenge we had was a lot of the ceilings are made of trees covered with palm leaves, so it was not possible to integrate any ceiling speakers in those".

Combine this with the museum being an open-air attraction in Dubai, where summer temperatures often exceed 40°C, and the challenges magnify. Éric and the XYZ Technologies team felt only Q-SYS loudspeakers were up to the task. "We had to choose a brand that was suitable to be inside and outside and withstand the harsh temperatures that we have here in the UAE. We chose Q-SYS because they have a wide range of loudspeakers available, from ceiling and smaller wall-mount for ambient sounds, to larger loudspeakers which offer a more impactful presence."

Solutions

Managing Multiple Audio Zones

The installation ultimately involved a selection of more than 800 Q-SYS loudspeakers to create a premium quality soundscape that remains consistent as guests transition from zone to zone. The AcousticDesign Series ceiling mount loudspeakers are ideally suited for foreground and background sound applications, and powder coated aluminium grilles mean they are well protected against corrosion from the sea air.

Additionally, Q-SYS enabled XYZ Technologies' site engineers to remotely manage audio levels for all areas of the museum from centralised touch panels equipped with a custom UCI created with the Q-SYS Designer Software. "With Q-SYS, if someone gives us a call to mute or unmute a specific room, we are able to do it remotely," said Andrew Lacambra, XYZ Technologies Site Manager.

Consolidating Processing and Playback

By utilizing the power of the Q-SYS Core 500i (now available as the Core 510i) and the Core 110f, which both have onboard media playback systems, the Al Shindagha Museum was able to combine external playback and audio processing within one system, significantly reducing hardware costs and enhancing the efficiency of the audio system.

This feature was pivotal when deciding on which DSP system to use for this project: "There are 25 Cores installed here at the museum," explains Éric. "We decided to use Q-SYS as the DSP system because the Cores 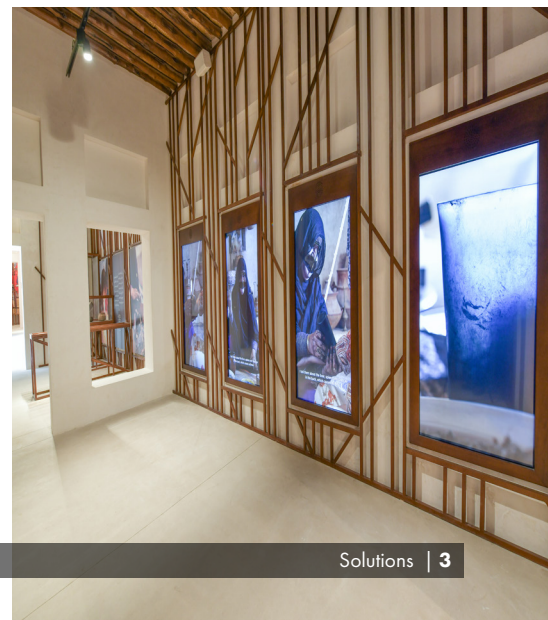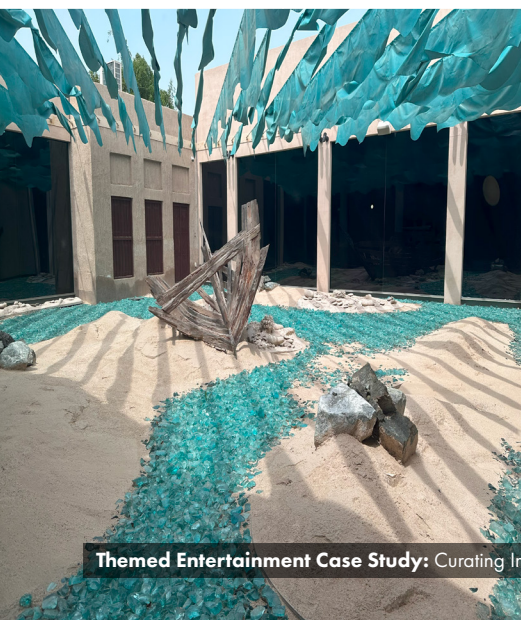are one of the only processors that have the capability of embedding playback tracks in the system, so we don't need to have an external playback machine outside of the digital processor."

The museum was able to create a multitude of distinct audio environments using the extensive number of networked audio channels available on the Q-SYS cores. Andrew states, "With the help of Q-SYS, we were able to separate the audio for each zone and create a massive cinematic experience for the client." This feature cemented Q-SYS as the choice of AV platform for the museum, as the multi-track playback allowed for simultaneous audio streams, each of which could be controlled independently.

Seamlessly Syncing Audio and Video

As media playback is fully integrated into the Q-SYS Platform, seamless control and synchronization with other system components is simplified. Matching the video and audio tracks was made more manageable with the help of software-based Dante™, which is part of the Q-SYS Ecosystem.

By leveraging the power of the Q-SYS Platform and software-based Dante, XYZ Technologies were able to keep hardware costs down. Q-SYS integrates both Dante audio and control data on a single switch port, and because Q-SYS operates over standard network infrastructure, Dante data can converge with Q-SYS AV&C data, eliminating the need for complicated network bridging.

Q-SYS Equipment List

Model	Pcs Used	Description	Image
Core 500i (now updated to Core 510i)	3	Q-SYS Audio, Visual and Control Processor Networked I/O: 256 x 256	
Core 110f	21	Q-SYS Audio, Visual and Control Processor Networked I/O: 128 x 128	
AcousticDesign™ Series Loudspeakers	100+	Premium Installation Loudspeaker Conical DMT™ Designed for Clarity and Presence	
CX-Q Series	35	Q-SYS CX-Q Series Network Amplifier Onboard GPIO FlexAmp™ and FAST Technology	

Q-SYS™

Q-SYS is a globally recognized manufacturer of audio, video and control (AV&C) solutions for huddle rooms to stadiums—and everything in between. Our systems make it easy for your team to design and integrate flexible, scalable solutions and deliver the native IT integration and standards-based technology your customers expect.

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