

CASE STUDY

Abu Dhabi National Oil Company (ADNOC)



Q-SYS frees up personnel to focus on quick decision-making in a high-stakes environment where zero downtime is crucial.

ADDITIONAL FORMATS

[Online](#)

JUMP TO

[Overview](#)

[Challenges](#)

[Solutions](#)

[Equipment List](#)

Enhancing Collaboration and System Reliability in ADNOC's Digital Command Centre



أدنوك
ADNOC



CUSTOMER NAME

Abu Dhabi National Oil Company

LOCATION

Abu Dhabi, UAE

INDUSTRY

Government

The Abu Dhabi National Oil Company ([ADNOC](#)) is one of the world's leading diversified energy groups. Through targeted investments in digitalisation and artificial intelligence, the company has enhanced its operational efficiency and accountability, leveraging advanced technologies to improve health, safety, and environmental (HSE) outcomes.

In their award-winning Digital Command Centre 'Panorama', ADNOC tracks over 250,000 data points in real-time, displaying the information on a 55 m × 4 m COB LED videowall, currently one of the largest fixed COB installations in the Middle East. Their AI-powered systems support early detection and prevention of critical equipment failures and enable live monitoring of multiple environmental KPIs.

In mission-critical headquarters such as this, effective and efficient communication is key. ADNOC required a reliable AV solution that would facilitate immediate decision-making and clear communication with practically no downtime.

“Q-SYS, as a single unified platform, manages everything from cameras and microphones to endpoint connectivity. Their tools have enabled personnel to focus entirely on critical decision making.”

Joumanah Harfoush, Business Development Manager, Aesthetix

Challenges



UAE-based systems integrator [Aesthetix](#) was given the challenge of updating ADNOC’s Digital Command Centre. Their goal was to provide ADNOC’s executive team with a long-lasting and future-forward audio, video, and control installation that would enable streamlined collaboration and ensure minimal interruptions during deployment and beyond.

Partners



Every second counts when making crucial operational decisions. The importance of system reliability in these situations cannot be overstated, especially in one of the most important command centres of the region. ADNOC sought to ensure that essential staff were not distracted by technological challenges. Basic functions such as camera tracking and content sharing should exist to aid communication, not hinder it. ADNOC needed an AV solution designed to streamline operations, enabling key personnel to concentrate on their core responsibilities.

Aesthetix also had to design a system that was aligned with ADNOC’s long-term digital strategy. With technological updates anticipated within the next five years, the solution needed to be future-flexible, enabling ongoing evolution while reducing long-term total cost of ownership through software-driven updates rather than repeated hardware replacements.

Solutions

PREVENTING DISRUPTION

Keeping operations running smoothly with disjointed solutions is inherently challenging in technologically dependent environments. As the number of endpoints grows, so does the operational overhead of monitoring, maintaining, and coordinating separate subsystems.

Each added platform increases complexity and places additional burdens on technical staff, slowing workflows at moments when speed matters most. To minimise complexity, the backbone of the integration had to be engineered for reliability and simplicity.

[Q-SYS](#), as a unified full stack AV platform, provides a single ecosystem for ADNOC's audio, video, and control. Business development manager for Aestetix, Joumanah Harfoush, explains, "Aside from the screen, everything — from the cameras and microphones to endpoint connectivity — is managed through Q-SYS." This centralised approach streamlines system management, enabling the team to run the entire centre without juggling several disconnected tools.

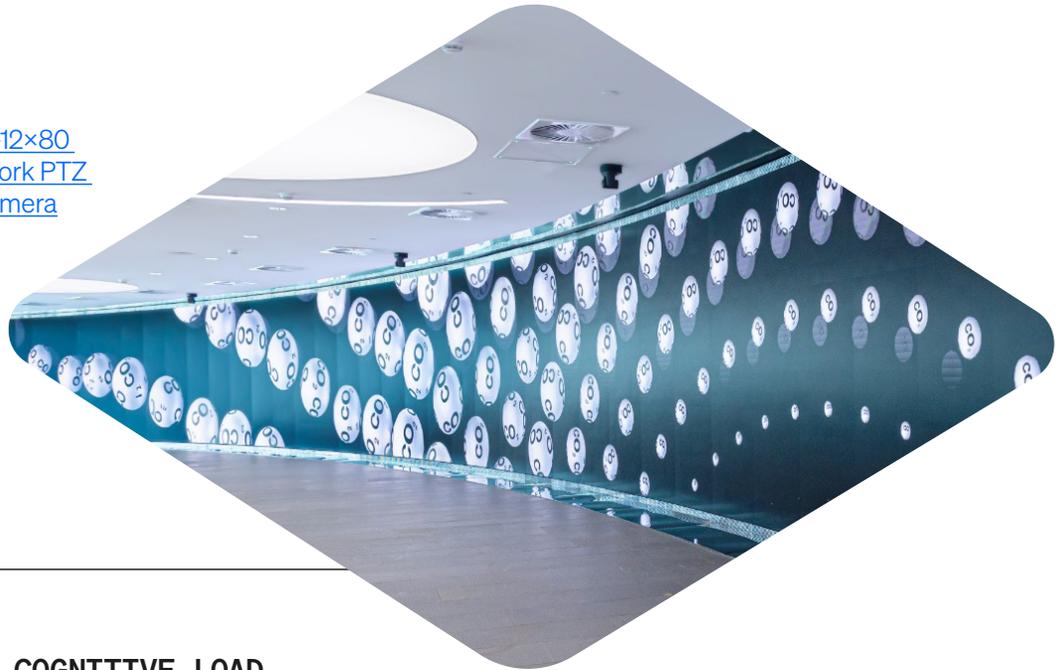
For this installation, two Q-SYS Core 510i processors (consider [Q-SYS X Class Server Cores](#) plus QIO as an alternative) handle signal routing and processing. Configured for redundancy, this setup ensures the system runs continuously, with the Core's dual ethernet connections and selected peripherals adding network-level resilience to further support uninterrupted operation.



Solutions



[NC-12x80
Network PTZ
Camera](#)



CONTROLS THAT REDUCE COGNITIVE LOAD

One of the primary objectives of this installation was to simplify video conferencing within the fast-paced environment. ADNOC required a solution that could operate intelligently and autonomously, reducing cognitive load so users could remain focused on more pressing tasks. “It had to feel seamless and natural,” states Harfoush. “The client didn’t want operators to have to think about how to be seen or heard.”

The video system comprises eight [Q-SYS NC-12x80](#) PTZ cameras, with five dedicated to operator workstations and three positioned at the front of the room to allow for full-body Presenter Tracking powered by [Q-SYS VisionSuite](#).

VisionSuite uses advanced computer vision to dynamically track and frame presenters, instead of relying on voice activation like traditional camera tracking systems. This ensures consistent speaker framing even during dynamic, multi-presenter sessions, or when speakers turn away from the camera or become partly obscured. When required, operators can still seamlessly switch to manual camera control at the touch of a button.

“The beauty of VisionSuite lies in its ability to deliver intuitive, full-body camera tracking, a key requirement for ADNOC’s dynamic environment,” says Aesthetix project manager, Mohammad Najib. “By removing the need for manual camera adjustments, operators can concentrate entirely on their decision-making, and initial feedback has been overwhelmingly positive.”

To further simplify control, workstations are equipped with [Q-SYS TSC-101-G3](#) Touch Screen Controllers and [NV-21 Network Video Endpoints](#), enabling intuitive local control of content sharing, source routing, and meeting modes. Content from personal devices can be sent to specific display zones, including the LED videowall, via Barco ClickShare or USB-C connectivity.

Solutions

“ Q-SYS gives ADNOC a platform that’s scalable, secure, and built for what comes next. ”

Joumanah Harfoush,
Aesthetix Business Development Manger

UPGRADING WITHOUT UPENDING

Part of ADNOC’s long-term digital strategy anticipates updates to ‘Panorama’ within the next five years. With Q-SYS, upgrading doesn’t have to involve a complete rebuild of the underlying AV infrastructure. As a software-scalable platform, Aesthetix can expand the system as ADNOC’s requirements evolve, while keeping the central architecture intact.

“Q-SYS gives ADNOC a platform that’s scalable, secure, and built for what comes next,” notes Harfoush. “We chose hardware that would allow ADNOC to scale over time without requiring a complete overhaul.”

Even with everything that ADNOC are using the Core 510i for today, there’s still ample processing headroom available, leaving room for future system expansion and enhanced control and automation workflows.



Equipment List

Model	Pcs Used	Description	Image
NV-21-HU Network Video Endpoint	12	Software Configurable Network Video Endpoint w/ AV Bridging & Device Charging via USB-C	
NC-12x80 Network PTZ Camera	8	Network PTZ Camera 12x optical zoom, 80° horizontal field of view	
Core 510i (Consider Server Core X10)	2	Integrated Core Processor 256 × 256 networked audio channels 64 x AEC processors Up to 128 × 128 Dante audio channels	
TSC-101-G3 Touch Screen Controllers	2	High Definition Touch Screen Controller 1920 × 1200 px PCAP Multi-Touch Surface	
SVS1 & SVS4 (Now available as VSA-100)	1	VisionSuite AI Accelerator	
SPA2-200	2	Two Channel Amplifier Up to 200 Watts Per Channel Into 4 & 8 Ω	
AD-C6T-LPZB	20	Ceiling Loudspeaker 6.5 inch, 2-way, Low Profile, Zero Bezel	



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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