

Webinar: Case Study – The Networked Multiplex

1) How are you using Q-SYS for automation at the Los Angeles location of Alamo Drafthouse Cinema?

[Q-SYS](#) can communicate with external equipment via TCP/UDP Ethernet, serial, or GPIO. Using [Q-SYS Designer](#), commands can be assigned to raw devices and easily sent out either by a button push from a Q-SYS UCI or through an automated process where an external device triggers a series of controls within Q-SYS.

At Alamo DTLA, we are using Q-SYS to directly control several devices via GPIO and Ethernet, additionally supported by the IMC-2e Ethernet automation interface device manufactured by Moving Images Technologies for additional dry contact closures and a fire alarm interface.

Learn more about Q-SYS control options here: [Q-SYS Control 101](#), [Intro to Q-SYS Control](#) and [Intro to External Control](#)

2) How do you accomplish Live presentations in each auditorium? Is there a cart or wall connection?

Alamo Drafthouse DTLA utilizes permanently installed custom patch panels in each auditorium. The I/O consists of 6 mic inputs, a stereo pair input, HDMI IN, Confidence Monitor Out, and Ethernet connection for internet access. Audio from these patch panels is on ramped to the Q-SYS network via [QSC I/O-8 Flex](#) Q-SYS peripherals, while video is sent to the Visionary Solutions I/O devices.

3) How are you utilizing the 4 Core 510c's at this location?

The 4 Q-SYS [Core 510c](#)'s are paired off to provide primary and secondary redundant processing for 2 different clusters of auditoriums along with supporting the lobby and bar. 1 pair of cores handles audio processing and control for 10 auditoriums, while the second pair handles the 2 large auditoriums along with the lobby and bar. QSC DPA-Q amplifiers are located throughout the facility, as physically close to their corresponding loudspeakers as possible to ensure short speaker cable runs.

4) You mentioned you are considering using 1 Core per auditorium for other locations? Why?

The benefit of that is that we are able to consolidate a lot of the connections of the core as well as the I/O-8 Flex to capture some of the presentation inputs as well as the audio processing for the room. The [QSC Core 110c](#) offers 8 channels of balanced analog inputs, 8 channels of balanced analog outputs, along with offering 8 channels of balanced “flex” channels. These can

be used as either inputs or outputs depending on the requirements of the system. This makes it an excellent all-in-one workhorse for each room. Multicasting from core-to-core is handled differently going this route, but there is still a tremendous amount of flexibility and capability.

5) Can you use Q-SYS to detect the occupancy in theaters for attendance, and is it able to turn on or off the reclining of seats if there is not a patron in that seat?

If the seats support control and monitoring via TCP/UDP Ethernet, serial, or GPIO, these functions should be possible with scripting and logic programming within the Q-SYS Design.

6) Are you using Q-SYS or standard audio processors at your other sites?

Prior to moving to Q-SYS processing and network amplification, Alamo was using QSC [DCP processors](#) along with QSC [DCA Series amplifiers](#). In Manhattan, we felt that using Q-SYS (1 core for each of 14 auditoriums) was the right move.

7) Do you run the Event-Audio via the Control Network, or are all Cores connected to the Q-Lan network?

At Alamo DTLA, background music along with paging and other secondary audio sources are streamed Core to Core via Q-LAN RX and TX components on the Q-LAN network.