... I could **standardize** on a single Audio, Video and Control (AV&C) platform
Provide consistent support and user experience across our global organization

... we could easily **manage** our AV&C platform
Remote management, technical support and effortless upgrades without hardware workarounds and special knowledge

... our AV&C platform could seamlessly leverage **our existing network**
A&VC solutions that work with standard network switches, cabling, protocols, etc.

... **users could start meetings without the hassle**
The same positive experience in every meeting room in your organization completely transparent to the user
... our AV&C provider were an industry pioneer and partner
A systems provider known for having customer experience as their best offering

... our AV&C platform could integrate easily
Interoperable with web conferencing applications, laptops, and tablets with customized control from the same touch screen

... adding more capabilities didn't require adding more hardware
Instead of bolting on yet another hardware box to an already convoluted system, additional capabilities come with simple software update

… OUR AV&C PLATFORM WORKED LIKE THE REST OF MY IT INFRASTRUCTURE.
QSC SYSTEMS HISTORY IN THE MAKING

QSC is a place where past achievements and future possibilities converge to inspire inventive and practical solutions. It is the place where industry legends work alongside top engineering talent, where software platform developers work in lockstep with hardware developers at all parts of your audio, video and control (AV&C) platform, from the processors and peripherals, to amplifiers, loudspeakers and more.

Since 1968, the engineers at QSC have pioneered audio processing and distribution technologies including digital signal processing and transport, power amplification and loudspeakers, digital mixer engineering, and time-sensitive media networking for corporate venues, entertainment professionals, and cinema customers worldwide. As the world’s first licensee of CobraNet™ in 1996, QSC created DSP-based audio processing products that enabled new capabilities in commercial sound reinforcement systems.

In 2006, the QSC team was joined by the original innovators of configurable DSP technology: the members of the Peak Audio team that developed the first software-based configurable audio platform and ubiquitous networked audio protocol. QSC’s powerhouse software and hardware engineering team quickly set their sights on a singular goal: to build the most powerful and scalable audio, video and control platform ever.
To do so, they would need to defy the prevailing AV&C paradigm (based on old proprietary DSP chipset technology) and build an entirely new platform paradigm from the ground up. They would do so by embracing mainstream technologies from Intel™, Linux™ and standards-based networking concepts.

QSC would also need to maintain a laser focus on building a platform with an outlook towards software applications rather than relying on building “bolt-on workaround” hardware pieces to address the issues that might arise.

And since the platform would be software-based, QSC had the opportunity to design a system that could be extensible into other branches of the AV&C application space, like third-party device integration, audio/video bridging for soft codec video conferencing applications, system wide control, and more.

The result of these efforts is the Q-SYS Platform.
When you add it all up, Q-SYS just knocks everything else off the charts.

ROD SINTOW | PRO SOUND & VIDEO - FLORIDA & CALIFORNIA
IN A NUTSHELL ...

Q-SYS has no equal as a scalable audio, video, and control (AV&C) platform. It uniquely leverages the power of Intel™ processing, the robustness and mission-critical reliability of a Linux™ realtime operating system, and the interoperability of IEEE networking standards to deliver an open and IT-friendly ecosystem. The capabilities of Q-SYS software-based processing and control transcends the limitations found in single purpose hardware-based products.

Q-SYS AV&C REALTIME OPERATING SYSTEM
All the operations within Q-SYS function at the software layer, providing a highly scalable platform that can grow to fit future needs with a simple firmware update rather than the traditional “rip-and-replace” approach often experienced with hardware-based AV products. For meeting room applications, these software-based operations include AV connectivity via USB to support web conferencing applications such as Skype for Business™ and Zoom™, VoIP functionality with LDAP and IPBX registration, multi-channel acoustic echo cancellation (AEC), SNMP real-time status monitoring and much more.

LINUX
With a custom, streamlined Linux kernel, Q-SYS is a realtime audio, video, and control operating system that can be applied to any AV system requirement. Building on computer industry standard technology, Q-SYS is the most modern AV solution available today with the unique ability to develop and expand to suit customer requirements all at the software layer.

IEEE STANDARD NETWORKING PROTOCOLS
Q-SYS leverages IEEE standards for networking to provide complete control and monitoring of all components in the system as well as high-performance, deterministic, low latency audio over a standard Layer-3 infrastructure. Q-SYS co-exists with all other services on your network using standard IT gigabit switches and administration techniques. Furthermore, the Q-SYS architecture also supports comprehensive system redundancy, which is essential for mission-critical installations requiring high system availability.

INTEL HARDWARE
The entire range of Q-SYS Core processors and family of Q-SYS peripherals builds on the server-client philosophy, and leverages Intel’s massive research and development efforts by enlisting Intel chipsets rather than proprietary DSP chipsets. The hardware meets a variety of installation and configuration requirements from small meeting rooms to large corporate venues.
Q-SYS CONFERENCE ROOM INTEGRATION

WEB CONFERENCE INTEGRATION
The Q-SYS Platform allows for an easy, plug-and-play experience for end users to interface their own device or in-rack PC with the room’s audio and video camera streams for web conferencing applications like Skype for Business™ or Zoom™ without any special device drivers.

TRANSPORT & CONNECTIVITY DONE RIGHT
Connect your Q-SYS processor and peripherals to the network switch using inexpensive CAT-5/6 cable, and then use standard USB 2.0 connection points from the Q-SYS bridging devices to the host PCs. Eliminate cable length limitations and the costly mix of USB extenders and matrix switchers commonly associated with traditional systems.

ROOM GEOGRAPHY SOLVED
Q-SYS bridging devices allow the user to connect under the table (via I/O USB Bridge), or in the rack (via Q-SYS Core processor). This networked solution also allows you to use as many Q-SYS conferencing cameras and as many USB endpoints as you like, all without a video matrix or additional USB switches. Best of all, Q-SYS bridging peripherals are all PoE.

SOFTWARE-BASED IN-ROOM CONTROL
Q-SYS provides control without dedicated control processors. An integrated scripting engine and agile, modern programming tools allow you to integrate and control all in-room third-party devices, and control the entire system with Q-SYS native touch screen devices and customized graphical interfaces for a seamless end-user experience.
SMALL MEETING ROOM
6-8 PEOPLE (WITH SHARED CORE PROCESSOR)

- Bring-your-own-device (BYOD) support for PC-based video conferencing
- Class-leading audio and cameras bridged to the PC via USB for web conferencing applications like Skype for Business™, Zoom™, etc.
- Simple deployment for trouble-free campus expansion
- The Core 110f has enough I/O and processing power to run multiple small meeting rooms.
MEDIUM MEETING ROOM
6-8 PEOPLE (WITH STAND-ALONE CORE PROCESSOR)

- Concurrent AV-to-USB bridging at multiple locations in the room
- Multiple PTZ conferencing cameras without the need for a dedicated video switcher
- Enterprise connectivity for fault monitoring and usage analytics
- Standards-based networking for IT-friendly deployment

Existing Corporate Network

Q-SYS Core 110f Processor
Rackmount PC
SPA Series Amplifiers

I/O USB Bridge
Q-SYS PTZ-IP Camera
Q-SYS Touch Screen

AcousticDesign™ Series Loudspeakers
Analog Audio Inputs
Analog Audio Outputs
• Microsoft® Exchange server integration for corporate phone directory on touch screen dialer
• BYOD support for PC-based conferencing in all huddle rooms via USB

• Touch screen dialer for VoIP audio conferencing in all huddle rooms
• Scalable processing available for simple campus expansion

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- STANDARD CAT-5/6
- USB 2.0 OR HIGHER
- HDMI FOR PRESENTATION
- VIDEO DISTRIBUTION
- Reconfigurable microphone pickup pattern based on room configuration
- Multiple HD cameras without the need for dedicated video switching equipment
- Lecture recording and simultaneous video conferencing from multiple PC locations
- Wall-mounted touch screen controllers for simple room setup changes
SCALABLE ENTERPRISE SOLUTIONS
IN-ROOM I/O + CENTRALIZED PROCESSING AND MONITORING

- Take advantage of standardizing room types throughout your organization.
- The entire building is processed by a single Enterprise Core processor in the data center (redundancy is available on all Q-SYS Cores and peripherals).
- I/O-8 Flex peripherals can be used as analog I/O devices for huddle rooms and smaller meeting rooms.
- For rooms with larger I/O requirements, smaller Core processors can be used as I/O devices on the same system.
- All rooms can be powered by network CXD-Q Series amplifiers or smaller in-room analog SPA Series amplifiers.
PROCESSING IN THE DATA CENTER

- Centralized Resources: Take advantage of the corporate infrastructure and place your Q-SYS Core alongside other building-wide IT services
- Reliability: Redundancy options for power supplies, networking, storage, and processing
- Flexibility: More effectively support centralized, distributed, or hybrid system configurations

INPUTS/OUTPUTS IN THE MEETING ROOM

- Networked Q-SYS Peripherals: Utilize a portfolio of cost-effective Q-SYS networked I/O peripherals designed to supply necessary endpoint functionality
- 3rd Party Integration: Leverage a wide variety of networking solutions to integrate with a broad range of networked peripherals from 3rd party manufacturers

introducing next-generation Q-SYS ENTERPRISE CORES utilizing standard Dell server hardware & the realtime Q-SYS operating system