



Sound Image Turns Up the Volume Creating a Totally Digital Experience at Red Rock Casino, Resort & Spa's "Rock's Lounge"



ESCONDIDO, Calif., — Southern California Sound Image Inc. (<http://www.sound-image.com/>), a designer of advanced audio-video systems for stadiums, resorts, casinos, hotels, theme parks, corporations, churches and museums, today announced completion of a new totally digital audio-video system for Red Rock Casino, Resort & Spa's Rock's Lounge" in Las Vegas, NV.

Rock's Lounge is a 7,000-square-foot venue featuring live entertainment five nights a week, routinely hosting bands such as Gnarl's Barkley, Average White Band, The Family Stone, Big Bad Voodoo Daddy, Yellow Brick Road and Zowie Bowie.

Rock's Lounge opens directly onto the casino floor, creating the first design challenge faced by Sound Image. The venue's overall sound level needed to be controlled so it would not overpower the gaming room where high rollers concentrate on winning.

When Station Casino's Director of Production Entertainment, Kevin Scroggins, began developing the project, he was well aware that spill-out sound was a major concern of management and he communicated his objectives directly to Sound Image (SI).

SI created a solution that spelled success for Rock's Lounge by installing QSC Isis WL2102 Wide-Line Array with a vertical coverage pattern that allows the audio energy in the room to be aimed at a particular point without being projected any further. Once the music hits the target limit, it almost immediately falls off. Six loudspeaker enclosures are flown at each side of the stage. Crown I-tech 6000 and I-tech 8000 amplifiers power the arrays. Using Harman Hi-QNet digital signal processing and Lake Contour MESA Quad EQ with an accompanying Tablet Computer, the system is band-passed, equalized, limited and time delayed using sub-woofers mounted in concrete bunkers below the stage as the time reference point. Sound Image (SI) custom designed four double-18" subwoofers that neatly fit a stage that was only 32" high. JBL CSP 18 front fills are used to fill the void left by the main arrays in front of the stage.

Over the years, SI has designed several audio-video systems for Station Casino properties, completing each job on time and on budget. "Sound Image is consistent, dependable and reliable, solving any design challenge," said Stewart Ashton, Entertainment Production Manager, Red Rock Casino, Resort & Spa. Project manager Jason Schwartzel's role was key to getting the job installed, completed and commissioned several weeks before to the lounge's grand opening.

Rock's Lounge faced the challenge of having limited space and the need to accommodate bulky monitors and ancillary sound equipment. Sound Image installed an Aviom personal monitor mixing system with the performing musician in mind. By putting control of the monitor mix into the hands of the performers, band members are less frustrated when performing live.

SI also provided the performers with Shure in-ear monitors, allowing unencumbered movement by active stage performers. Each performer has completely independent control over his or her personal monitor mix. And because each personal mixer stores up to 16 personalized presets, everyone can have perfect monitors night after night without long sound checks. The AVIOM16/0Y1 digital card provides 16 channels of audio to the on-stage Aviom A-16D Pro A-Net Distributor. Several KV2 EX 10 self-powered monitors also are on hand just in case a performer needs a traditional stage monitor in addition to the in-ear system.



Sound Image selected the Yamaha DM 2000 digital console to manage the audio system in Rock's Lounge. The beauty of this console, said SI specialists, is its ability to easily recall programmed settings for all the acts that regularly perform in the Lounge. Using a digital memory stick, house sound engineer Ken Landis can literally have a band ready for sound checks in minutes.

To make the front of the house mixer's job easier, Sound Image installed an Extron audio router for the monitoring of all the various Aviom stage sub-mixes. Using Yamaha DM2000 console assignable control buttons, Midi commands are issued to the Extron router cross-points and a stereo line level signal are routed to two input channels on the console for monitoring purposes. An AMX Midi to RS232-C converter is tasked to do the command conversions.

Another unique feature of the audio system is that it was designed to be completely digital from microphone input to amplifier, without traditional digital to analog conversion stages. Sound Image successfully implemented AES/EBU digital audio using Yamaha's AD8HR remote-controllable mic preamps. Converting the analog signal to digital audio right from the stage takes advantage of digital audio's immunity to interference and the ability to travel over long cable runs without degradation.

After passing through a console, a Lake Contour Mesa Quad Equalizer is available to the house sound engineer for final tweaking of the QSC Wide-line arrays and front fills. AES/EBU transport is used again for the signal to the Crown I-Tech IT4000, IT6000 and IT8000 amplifiers. All system band-pass processing and time alignment is accomplished using the built-in amplifier DSP. A HiQnet network connects the amps with the front of house location.

With comfort in mind, Rock's Lounge features six oversized VIP "pods" with a stereo pair of Yamaha IF2108 loudspeakers, and a Tannoy TS10 self-powered sub. A local volume control

enables customers to adjust the audio levels in their "pods". VIP guests enjoy a surround sound experience complete with zebra chenille "bed" seating and bottle service. BSS Soundweb London processors take care of processing and delay offsets.

The showroom's video system is built around high band-width Extron RGBHV and composite switchers controlled through an AMX Netlinx control system. The lounge features a Sanyo PLC XF60 6500 ANSI Lumens video projector with a 9' x 16' Steward Model AB with Greyhawk Material. Four 60" LG Electronics MU-60PZ95V plasma screens provide additional video viewing locations throughout the lounge. Primarily showing sports-related programming, 42" LG Electronics Plasma Screens are mounted around the adjacent bar. All greenrooms at the back of the house have 37" LG Electronics LCD monitors capable of screening live events in the showroom, or more than 100 channels of the house television feed. Three Sony BRC-300 digital pan-tilt head cameras with a RM-BR300 controller are in place to capture stage performances, which can then be fed to the 60" plasma displays. Sound Image supplied a full compliment of wired and wireless microphones, sufficient to fulfill the equipment riders of most touring acts. These include products by AKG, Shure, Sennheiser and Klark Tekmik to mention a few. Clearcom provides the production communication system with stations setup at the front of the house, stage and green rooms.

From the custom leopard-spot glass bar face, to tortoise shell light fixtures, to a rocking audio/video system, Rock's Lounge guarantees a premium entertainment experience.

About Sound Image

Southern California Sound Image, a world-class designer of advanced audio-video systems for stadiums, resorts, casinos, hotels, theme parks, corporations, churches and museums, celebrates over 36 years of bringing state-of-the-art communication solutions to businesses, homes and concert venues. For more information, please visit <http://www.sound-image.com> or call **760-737-3900**.