



Photo courtesy of Kalahari Resorts

Kalahari Convention Center a benchmark for meeting planners

New meeting facility illustrates advantages of all-digital AV infrastructure featuring Crestron DigitalMedia™ solution

Audio/video technology is undergoing a major transition, with important ramifications for meeting planners.

According to Matthew Dick, Information Technology Manager for the newly expanded Kalahari Resort Convention Center, “Installing an all-digital system has helped us to maximize the efficiency of staff and lower costs yet provide better service for our clients.”

What do you need to know about these technology changes if you are in charge of a meeting center? Dick says there are two main components that make the resort’s all-digital systems work: a fiber-based IP-network backbone that carries all of the audio and video signals throughout the new facility, and simplified, flexible control of the new systems using touch-sensitive panels plus a specialized control app for the Apple® iPad® carried by the catering and IT staff.

With the new systems in place, Dick is able to manage the region’s largest convention center with fewer people than similar facilities. Yet he says he’s able to provide his customers better video and audio quality and better service for a much lower investment than would be possible with a traditional, analog system.

Networked video and audio

With the \$22 million expansion now complete, the Kalahari Resort boasts 215,000 square feet of meeting and exhibit space, including a 38,000 square foot grand ballroom/expo center, a 12,000 square foot junior ballroom, 14 meeting rooms, and 30,000 square feet of pre-function space. In addition, the resort has America's largest indoor water park and over 900 guest rooms.

Like most hotels and convention centers, Kalahari staff set up projection, sound and other audio/video technology on a customized basis for individual clients. Unlike most, however, their new facility includes a permanently installed IP network infrastructure to carry audio and video signals, which greatly enhances the speed of setup and the quality of the projected visuals and sound.

This type of AV network infrastructure, whether installed in a convention center or a single meeting room, must be customized to the size of the facility and the needs of the users. If you install a digital AV network in your facility, however, you'll want to make sure it includes the ability to handle any kind of analog or digital signal, including high definition video, in any format. It should be in full compliance with HDMI® standards to avoid any issues playing consumer media or connecting newer laptops or Blu-ray Disc® players. It should also have the ability to carry digital high-definition signals without compression, to preserve the best possible quality, and a matrix switching setup, so that staff can route any source to any projector or display anywhere in the facility.

At the Kalahari Resort, Dick designed an all-digital system based on Crestron DigitalMedia. DM® was the first IP-network system designed to carry and manage high-definition video and audio signals, and at this writing it remains the most comprehensive and most reliable such system.

The DigitalMedia implementation at Kalahari uses fiber optic cables, which are best for larger networks together with a DM 64X64 matrix switching system. For example, the network allows staff to route high-definition video and audio signals of a keynote speaker and his or her PowerPoint® slides, from any section of any room to any or all parts of the facility.



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It's important to note that this type of digital infrastructure costs considerably less than comparable analog cabling. Dick estimates that the cost of installing the DigitalMedia fiber network at Kalahari was only about one third of what it would have been built in the traditional way, which would have required installing heavy copper VGA or component video cables. In this case, that meant a total cost of roughly \$400,000 for the cable, switchers and other components, including installation labor, versus a projected total of \$1.2 million.

The DigitalMedia network is future-proof as well. Today the AV infrastructure at Kalahari is carrying full 1080p high definition, but it's ready for even higher quality formats as technology changes, including Deep Color and 4K video. But even as these

newer technologies come and go, the fiber optic network, which is the most expensive part of the installation, will still be usable. “Our minimal goal is to install components which will last three to four years, but we expect this infrastructure to last at least 10 to 20 years,” Dick explains.

Simple-to-use, flexible controls

The second key to making this system work is its highly sophisticated control system, also built with components from Crestron.

Staff technicians can configure the meeting space and control all of the audio/video systems, including a fully-digital house sound system, using 14 wall-mount Crestron touch screens, two master touch screens in the control room and IT office, or Apple iPads loaded with the Crestron Mobile Pro® control app.

Clients, too, can use the touch panels in the rooms they are presenting in to control source selection, audio volume, and lighting levels, plus component-specific controls such as “play” or “pause” on a Blu-ray Disc® player from an iPad. Should clients need help during a setup or a meeting, they simply dial “3-HELP” on any telephone and immediately connect to an IT or AV technician.

That technician can bring up a screen on his or her iPad with the controls for the room the client is working in, as well as

facility setup and signal routing controls. Using the iPad, technicians can normally solve problems immediately from wherever they are, even if they’re offsite. “If a problem arises, our clients never have to wait for service,” Dick explains.

Also crucial to the functioning of the Kalahari Convention Center is a house sound system based on digital audio processors from Biamp Systems of Beaverton, OR. These processors provide microphone and line-level audio mixing, equalization, filtering, delays, telephone interfaces, metering and audio routing. Controlled by the Crestron touch screens and the Crestron iPad app, they handle program audio, paging, full-room audio teleconferencing, the audio portion of video conference calls, as well as the combining and de-combining of the sound systems as technicians open or close air walls in the various spaces.

The Kalahari Convention Center is a much larger meeting space than most businesses would ever consider, but each of these key components is adaptable to any size office or meeting room.

Because they have the best possible tools, the Kalahari Resort is able to manage the large property with great efficiency. For that reason, and because better systems serve customers better, they are willing to spend more initially to save the company money in the long run. “It’s all about efficiency and customer service,” Dick says.

“Client expectations in our industry, and every industry, have grown in recent years,” he adds. “If you listen to your clients, listen to your employees and work hard to build partnerships and relationships, like our relationship with Crestron, you can do great things.”

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