

First Baptist Church, Owensboro, Ky

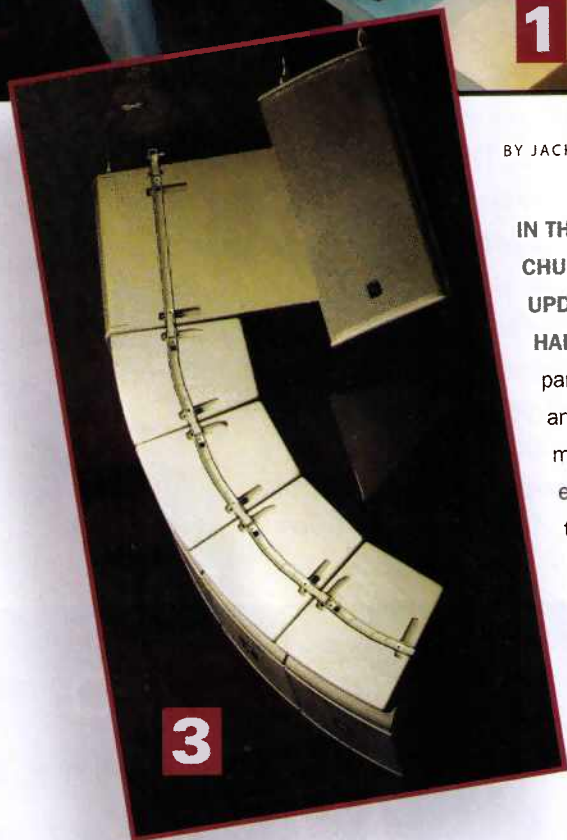
GOING ALL-IN WITH DIGITAL AUDIO



BY JACK KONTNEY

IN THE YEARS SINCE FIRST BAPTIST CHURCH OF OWENSBORO, KY., LAST UPDATED ITS AUDIO SYSTEM, A LOT HAD CHANGED. Services had expanded from traditional choir, piano and organ, adding a full contemporary music presentation—something the existing speaker system, installed in the 1980s, just wasn't designed to handle. Keeping one eye on the future, the church set out to install an all-digital system, meeting its current needs while accommodating future changes. An additional level

of complexity was added by the fact that the building was erected in 1920, requiring that the historic architecture be respected. Minister of Music Mark Slaughter managed the project for the church. "Pastor Paul Strahan and the church committee wanted to fully support these two very different styles of worship and do it efficiently, with no major setup chores in between the two services," he explains. "Not knowing what the future will bring in terms of worship styles and technical platforms, we wanted something flexible and expandable. We knew we wanted to go to an in-ear monitor system as well. Really, we treated it as an investment in technology."



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MOVING FROM A 1980S-ERA SOUND SYSTEM TO AN **ALL-DIGITAL APPROACH IMPROVES SOUND QUALITY,** INTELLIGIBILITY AND FLEXIBILITY FOR THIS KENTUCKY CHURCH



1 Audio engineer Jason McGuffin at the Yamaha DM2000 FOH desk.

2 The previous loudspeaker system was an eyesore, comprising a massive center cluster hidden within a large octagonal frame and covered with grille cloth.

3 JBL Professional's VRX900 loudspeaker system with sidefill was the new choice for the 900-seat sanctuary, where a high ceiling and relatively short throw distances were factors.

4 Worship leader Mark Slaughter uses the Shure ULX-S/59 wireless and SamePage system.

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"THIS WAS AN INTERESTING PROJECT. THE CHURCH HAD A VERY STRICT BUDGET OF \$175,000 AND A DEFINITE VISION FOR WHAT THEY WANTED TO ACCOMPLISH. THEY WANTED TO UPGRADE THE ENTIRE SOUND SYSTEM, ELIMINATE ANALOG PATCHING AND ADD INPUTS WHILE MOVING TO A DIGITAL SYSTEM. IT WAS DEFINITELY A CHALLENGE TO MEET ALL THE REQUIREMENTS AND STAY WITHIN BUDGET."

— Dan Heins, lead designer, Clair Systems, Manheim, PA

To reach their goals, First Baptist engaged Clair Systems of Manheim, Pa., the installation arm of Clair Global, best known as the largest touring sound company in the world. "We wanted to work with a design-build company," notes Slaughter, "so there would be continuity between the design and installation phases."

Clair Systems' lead designer on the project was Dan Heins, a former touring engineer. "This was an interesting project," he relates. "The church had a very strict budget of \$175,000 and a definite vision for what they wanted to accomplish. They wanted to upgrade the entire sound system, eliminate analog patching and add inputs while mov-

ing to a digital system. It was definitely a challenge to meet all the requirements and stay within budget."

"When we started, I was sure that we'd be spending thousands of dollars on new microphones and wireless systems," Slaughter recalls. "Dan Heins came in and said no, that all our problems could be addressed

Yamaha MD2000 consoles were chosen for both functionality and price. EtherSound is the church's new digital audio transport protocol.



with a better speaker system and a cleaner signal path. That gave us a lot of confidence in Clair. "

DIGITIZING THE AUDIO CHAIN

Two consoles were required—one to handle front of house and monitor system mixing, and another for the broadcast mix. The

choice came down to two Yamaha models, the M7CL and the DM2000. "There was a little resistance to the DM2000 since it isn't as modern-looking as the M7CL with the touchscreen," Heins recalls. "But it fit the budget, had the channel count we wanted, and the six expansion slots gave us

the flexibility we needed in signal routing." Adding more mic circuits was another challenge. Previously, all channels ran through conduit from the stage to the broadcast mix position upstairs. But the infrastructure of the church required that the new circuits be terminated in the equipment room. The key to solving this issue was the use of EtherSound as the digital audio transport protocol. "EtherSound is extremely low latency—microseconds instead of milliseconds," notes Clair Systems' lead installer Gaetan Rioux, "and that was the key. With EtherSound's bidirectionality, we could have mic preamps in two different locations, which is very unusual, and it gave them the digital patching they were looking for, done over Cat5 cabling. That saved us from having to add more conduit, which would have been very costly. And the EtherSound

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— Jason McGuffin, lead sound engineer,
First Baptist Church, Owensboro, KY

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BAG END LOUDSPEAKERS INFRASUB SUBWOOFERS, (847) 382-4550, www.bagend.com | **CLAIR SYSTEMS** SYSTEM DESIGN AND INTEGRATION, 717-665-4000, www.clairsystems.com | **COREVALUS SYSTEMS LLC** SAMEPAGE MUSIC DISPLAY SYSTEM(877) 211-0610, www.sampagemusic.com | **CROWN AUDIO INC.** CTS SERIES AMPLIFIERS, (574) 294-8000, www.crownaudio.com | **DIGRAM** SAETHERSOUND DIGITAL AUDIO NETWORKING, (703) 875-9100, www.ethersound.com | **FIRST BAPTIST CHURCH OWENSBORO, KY.** (270) 683-3505, www.fbcowb.org | **FURMAN SOUND, LLC** REMOTE HEADPHONE AMPLIFIERS, (877) 486-4738 OR (707) 763-1010, www.furmansound.com | **JBL PROFESSIONAL** VRX900 SERIES LOUDSPEAKERS, (818) 894-8850, www.jblpro.com | **LYNTEC INC.** SEQUENTIAL POWER SWITCHING, (800) 724-4047 or (913) 529-2233, www.lyntec.com | **PRO CO SOUND INC.** MOMENTUM IN-EAR MONITOR SYSTEM, (800) 253-7360 or (269) 388-9675, www.procosound.com | **YAMAHA COMMERCIAL AUDIO SYSTEMS INC.** DIGITAL MIXING CONSOLES, DSP CARDS, LOUDSPEAKERS, (714) 522-9011, www.yamahaproaudio.com

