

# Praise Worthy

Signage system at Hope Lutheran makes every Sunday exceptional

**By Dan Ferrisi**

It has become a given that houses of worship of all sizes, from the largest to the smallest, depend on audiovisual technology to deliver their message to the masses who, owing to our media-centric world, have been conditioned to respond only to content that equals what is readily available in their home, such as high-definition audio and video. Although this idea certainly holds true for adults who were around in a simpler, less technologically advanced time, it is especially applicable to youth, many of whom know nothing except modern technological excellence. Although a full Christian education audiovisual revamp was not what Hope Lutheran Church (Fargo ND) originally planned, the systems integrator with which it contracted was flexible enough, and had the integration expertise, to run with the project and deliver an amazing result.

Hope Lutheran is the largest Lutheran church in North Dakota, with a membership exceeding 10,000. It began with one sanctuary on the north side of Fargo in 1958; in 1992, the congregation offered a second worship opportunity in a school on the south side of town. This gathering grew quickly, leading the church to a second campus in 1995. By the time Steve Sjoberg, Director of Communication and Technology, started working at Hope Lutheran in 2005,



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**Hope Lutheran Church, the largest Lutheran church in North Dakota, has two campuses. It recently invested heavily in audiovisual outfitting at both.**

the two campuses had nearly the same attendance on Sunday morning. “This church likes to think of itself as the Little Church on the Prairie but, when I started here, it had grown so rapidly that the communication was a mess. The two campuses were almost operating as separate communities,” Sjoberg explained.

Originally, Hope Lutheran was looking to upgrade the loudspeakers in its North Campus, but the church’s thinking soon changed, leading to that upgrade being de-prioritized in favor of a revamp of the church’s education and youth spaces on both campuses. Audio Video Electronics (AVE), Maple Grove MN, a systems integrator specializing in church sound systems, commercial audio and video, school sound and video systems, room acoustics and stage lighting, was Hope Lutheran’s choice to execute its vision. We spoke to Nick Abendroth, Account Manager, who explained the considerable scale of the project—many rooms had to be integrated in a tight timeframe with a

limited budget—and the strategies for success.

“Hope Lutheran Church started a new Christian education program, and they wanted to increase the number of kids they could reach out to and touch,” explained Abendroth. “They wanted to engage the kids with a more interactive experience by having rooms where they could put on plays and skits, as well as worship, and have the technology to support them in doing that. To do this, they needed to reconfigure how their space was utilized.” And repurposing the space—and integrating technology—was not simple, given Hope Lutheran’s expanse. On the North Campus, AVE was charged with integrating conference rooms, a gathering space, a learning center, an infant room, classrooms, a fellowship center and a youth room. On the South Campus, the scope included a conference room, children’s ministry, a nursery, a media center, classrooms and a youth room.

Asked who the key project players were, Abendroth was quick to share credit with his AVE colleagues Design Engineer Scott Faloon and Project Leader Tedd Enger. "Our company is so integrated that we couldn't achieve this without every team member," Abendroth said. He noted that Steve Sjöberg, who served as the liaison from Hope Lutheran, was responsible for making recommendations, but final decisions came via church council vote.

AVE and the church first inter-

faced in Fall 2008, but the education expansion did not come into focus until Spring 2009. Installation began and ended in August, leading to an extremely tight timeframe to have all the education spaces ready for the beginning of the school year in September. "At the end, because we had some lackadaisical vendors and we got some product in at the last minute, Tedd and I drove up to Fargo ourselves and spent a couple of days until midnight finishing the job," he said, citing the need to help techni-

cians in the field who, frequently, were required to be in several places at once. The project is the definition of value engineering, as all the rooms were integrated for about \$100,000.

The complete project lies outside our scope here, but we will highlight some of the most important technology, starting with two North Campus classrooms: rooms 127 and 128. "There are so many different rooms, but similar rooms are nearly identical. All of the classrooms, for instance, have the same basic system," noted Abendroth. Room 128 is the larger of the two, so four ceiling speakers, rather than two, were installed. The choice was Tannoy Di5s, which were evenly spaced to ensure adequate coverage. A Biamp MXA-75 six-input mic/line mixer, power amplifier and output transformer was selected, as well. For micing, AVE opted exclusively for Shure, specifically PGX systems. In both classrooms, there are three wireless headset microphone systems, along with a wireless handheld mic.

Video is also integrated into each of the classrooms, in the form of a Sanyo XC-55 3100 lumen ceiling-mount projector. It projects onto a manual pull-down Da-Lite screen that measures 84 inches diagonal. "Additionally," began Abendroth, "they have Irradiant LED color-changing lights, so they have an infinite amount of colors to which all their light fixtures can change. When the main fluorescent lights are off, their stage can be any color, from red to blue to purple to orange to yellow to green...anything they'd like."

Vis-à-vis conference rooms, much of the same gear was chosen, owing to its perceived reliability and affordable pricing. AVE used two Tannoy CVS6 six-inch ceiling speakers in both spaces on the North Campus. Complementing those is the same projector, the XC-55, as well as the same Da-Lite screen and the same Biamp mixer-amp. "One of the things they wanted, and were very specific about, is having all these rooms in small, rolling, movable racks," revealed Abendroth. "We went with

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**Hope Lutheran makes liberal use of digital signage. The system's objective was to show one daily schedule for both campuses as well as announcements for upcoming events.**

Raxxess. They are little 12-space black oak wood racks and, because every rack has a drawer in it, we can put their gear in there and it's all neatly compartmentalized." The church put a computer with a monitor on each of the stands, which it uses for source content for audio and video.

Hope Lutheran's youth rooms, according to Abendroth, are its more "professionalized" spaces, which he explained by saying, "For instance, we put in a rolling rack with an actual sound mixer and flew traditional loudspeakers." For mixing, the church depends on a 16-channel Allen & Heath WZ3 16:2. In each youth room, two dB Technologies Arena 12 two-way passive loudspeakers are flown. "They were budget-minded," remarked Abendroth of the speakers, "but they sound good for a youth room." The microphones, once again, are Shure PGXs (two headsets and one handheld) and the same projector and projection screen are used again, as well. "This room, with all of the gear, is in a road-ready case...a rolling rack that they can push into the center and then plug in. They have a multi-pin connector in the middle of the floor that they plug into. So, they can unhook the sound mixer and roll the rack away, and then they have an open space."

Before wrapping this up, an extensive digital signage implementation

must be addressed. The system's objective was to show one daily schedule for both campuses, as well as announcements for upcoming events. AVE installed a 32-inch LG 32LG30DC LCD panel at each of the three entrances of the North Campus and the two entrances of the South Campus. Several digital signage software alternatives were evaluated before the Carousel solution from Tightrope Media Systems was selected. "When evaluating any type of software for a church, ease of use is an important feature, because church staff usually is not technical," admitted Sjöberg. "When we tested the Tightrope software, we found using the browser-based interface so intuitive that we knew any of us would be able to update the signs quickly."

AVE rackmounted a Carousel 300R Player in the control room at each campus. The player is connected to a Kramer TP-210 one-in/10-out DA so the signal from the player is routed to all the signs. Hope Lutheran opted for a two-zone, side-by-side layout for the digital signage. One zone shows the combined daily schedule for both campuses and the other zone rotates images, including announcements about upcoming events, information from the website, an RSS weather feed and the church's RSS feed to showcase news about the church.

Abendroth added, "We also in-



**The church wanted to engage the kids with a more interactive experience, including pleasing aesthetics, such as colored lighting.**

stalled a Crestron control system with a four-button interface in the control room. The church plans to install cameras in the worship spaces in the future, so the Kramer DAs have two inputs: one for the digital signage network and one for the video from sanctuary cameras." The Crestron control system uses an RS232 network to turn the digital signage displays on and off with the push of a button and, in the future, it will allow routing of the video with the touch of another button. "We also designed the system so we could easily route the digital signage messages to the screens in both sanctuaries to unify the message between the worship space and the rest of the church," Abendroth added.

Overall, the project was a success and the collaboration between AVE and Hope Lutheran was fruitful, leading to a continuing relationship into the future. "The initial reason we met this client was to address their loudspeakers for the North Campus," Abendroth began. "That was put on the back burner as we created their education solution. However, I received a call last week from Steve, and they're looking to move forward on their North Campus again." And so it is that, when an integrator meets all of a client's needs and goes the extra mile—such as those working-until-midnight evenings—to make a firm deadline, a relationship blossoms and technological excellence is achieved. ■