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Cornerstone is a growing church committed to offering an inclusive community that unites our campuses with one message. VITEC’s Multi-Site Video Streaming Solution enabled us to flawlessly stream both of our camera feeds from our main campus to our remote sites. And utilizing the integrated time-slip and playback capabilities of the well-known Renewed Vision ProVideoServer, all the people who attend the services at our satellite campuses now have the same message and rich video experience that’s taking place at our main campus. VITEC not only met our budget criteria but our requirement for quality, which we weren’t willing to sacrifice.”

Marty Sawyers  
Cornerstone’s Executive Pastor

## VITEC’S Houses of Worship Solution Enables Flawless Dual-Channel Multi-Site Streaming

**Background** - Cornerstone Christian Fellowship in Chandler, Arizona, is founded on the mission to reach the Phoenix area for Christ and to “do” church in a way that reflects the community, offers real answers to life, while remaining true to God’s word. A church of the future, the organization uses today’s modern audio and video technology to foster an environment where anyone can be part of its rich community, stay connected to each other, and be engaged with its message. In addition to its Chandler campus, the church has two satellite campuses, located at an elementary school in San Tan and at another church in Old Town Scottsdale. Meeting the spiritual needs of a growing eclectic church is no small feat, requiring five weekend services at the main campus and two Sunday services at each of the satellite campuses, and most importantly, a commitment to ensuring a consistent message that unites the campuses together as one community.

**The Challenge** - To fulfil that mission, the main Chandler campus’ uses a robust two-camera video setup to record the pastor’s weekly message, which is played back at the other two campuses via a software-based video streaming system. However, the system was prone to errors and didn’t provide adequate, reliable quality that would immerse and visually

connect its satellite members with the main campus. The organization needed a high-quality, reliable, and easy-to operate platform that would record, protect the stream from any errors that deteriorate the video experience, as well as offer delayed playback in accordance with each campus’ schedule. In addition, it needed to be capable of recording both camera angles of the stage and playback both streams in perfect synchronization.

**The Solution** - After assessing the market, Cornerstone - along with the organization’s integrator, EAR Professional Audio/Video - chose VITEC’s Houses of Worship Multi-Site Video Streaming Solution. VITEC utilizes cutting-edge HEVC encoding technology and the industry-leading Zixi™ error-free streaming protocol to transmit high-quality, reliable, and flawless streams to HOWs of any size over the existing IP infrastructure. Cornerstone installed VITEC’s 100-percent hardware-based MGW Ace encoder and MGW Series portable HEVC IP decoders at each campus. Powered by VITEC’s second-generation codec, the MGW Ace encoder delivers pristine, broadcast-quality video with its HEVC (H.265) bandwidth-efficient compression as well as legacy H.264 encoding capabilities. When MGW Ace is coupled with VITEC’s HEVC decoders, the devices become an end-to-end streaming solution that’s ideal for affordably transmitting flawless video streams for houses of worship. It also provides industry-standard RTMP streaming to distribute content to a large audience via Content Delivery Network (CDN).



In addition, the VITEC Houses of Worship Multi-Site Video Streaming Solution is integrated with Renewed Vision™ ProVideoServer™ (PVS), a four-channel HD video server from the most trusted technology provider in the worship space. PVS adds recording, playback, and time-slip capabilities to the VITEC system, enabling Cornerstone to easily record its two high-quality encoded streams from the main campus, complete with embedded time code and multichannel audio, and play back those streams at each of the satellite campuses at any time. PVS' time slip functionality, much like a DVR, allows for the immediate playback of a video, even as it continues to record from the main campus.

**The Result** - As a result of VITEC's Houses of Worship Multi-Site Video Streaming Solution with PVS integration, Cornerstone is able to stream and playback its two camera feeds in perfect synchronization, at the highest HD video quality available, and at the lowest possible latency to the remote site - making it an ideal dual-input, dual-output, time-slipped media record and play-out server.

VITEC's advanced video compression ensures that every stream looks great even on the campus' multiple large IMAG screens while Zixi's proven, unique transport software eliminates the video-transport problems that are inherent in unmanaged IP networks. This integration ensures that Cornerstone can deliver and playback video streams of unprecedented quality with no stutter, packet loss, or frame-freeze, regardless of network conditions.

Finally, VITEC's HTTP API allowed Cornerstone to create a custom graphical user interface (GUI) to control and monitor each of the VITEC appliances from a single user interface. With a simple GUI, all Cornerstone volunteers are able to centrally operate the system with ease. This simplifies and streamlines the process, reducing any technical roadblocks that come with management multiple systems and keeps Sunday services operating smoothly.

## Benefits

- Delivers affordable broadcast-quality HD video streams via the public internet
- Multi-site streaming over any network with stream recording for time shift play out applications
- Zixi Stream Protection for error-free, multi-site delivery over unmanaged networks