d&b Soundscape used at Clearwater Church



Picture: Washington Professional Systems

The Calvary Church in Clearwater, Florida has embraced 3D audio using d&b audiotechnik Soundscape. After studying areas of improvement, Calvary determined that the audio system in the sanctuary was unsatisfactory and did not meet the needs of the church. In 2021, the church contacted Washington Professional Systems (WPS), Wheaton, MD to assist in designing a completely new audio system for the sanctuary that would improve the overall sonic quality within the acoustic limitations of the space. The church wanted to improve the connection and engagement with its congregation of 2,000 and using Soundscape as an enabling technology, can achieve this goal throughout the 2,000--seat house. The multi-campus church (includes an on-line campus) and live steam of their services to over 4,000 people across its campuses. The congregational membership is 10,000 people.

d&b Soundscape increases spatial detail and headroom beyond a traditional system while reducing the burden to the mix engineer. The system is automatically optimized to allow each loudspeaker to automatically handle a different mix of signals, adjusting both level and delay which effectively enables the loudspeakers to work as a cohesive group. The audience receives accurate localization, and the engineer often requires less channel processing and plugins because the system doesn’t require as much mix processing. Adding surrounds then elevates the capabilities even further.

There were challenges that needed to be addressed in the church sanctuary: poor

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audio coverage throughout the space; significant drop-offs in bandwidth; considerable quality variations from seat to seat; substantial comb filtering during musical acts; poor intelligibility of spoken word and band vocals The sanctuary was initially designed as a traditional fan-shaped auditorium with a minimally raked, single bowl seating section.

“After exploring a variety of different audio solutions, the church ultimately decided to implement the d&b Soundscape system to individually time-align input sources to each speaker within each of the system arrays,” states Keith Neubert, Executive Director of Engineered Systems, Washington Professional. “Using the DS100 signal engine combined with the d&b En-Scene algorithm and d&b loudspeakers, listeners seated in any location of the sanctuary receive an accurate audio picture with Soundscape, reducing phase cancellation and increasing clarity throughout the frequency range, giving excellent intelligibility of spoken word and band vocals from the stage.”

“We liked how user-friendly the Soundscape system is and that it can be controlled from the platform or from front of house,” states Lead Pastor and Administrator, Thomas Price. “The cost-to-value made purchasing Soundscape and the A-Series loudspeakers from d&b the right call for us. The audio clarity was significantly and noticeably improved on the first Sunday the new system was commissioned. People who never commented about the poor quality of sound coming from the older system realized they had become accustomed to it. With Soundscape, they could hear how far from quality audio we had drifted.” Deployable in vertical or horizontal arrays with adjustable splay angles, the d&b A-Series augmented array extends flexibility beyond its usual limits and is ideal for mid-size venues.

The complete d&b configuration includes: 20 x Ali60 loudspeakers in 5 horizontal arrays of 4 cabinets each; 2 x KSLi-SUB, 2 x 21S SUBs, 7 x 44S loudspeakers (flush mount), 4 x 40D amplifiers, 2 x 10D amplifiers, a DS10 audio network bridge and DS100 Signal engine with En-Scene.

“In addition to congregants, church staff notice an immediate difference with the immersive quality of the d&b Soundscape audio system and its ability to deliver a natural, realistic experience for the entire congregation,” adds Neubert.” For speakers, vocalists, and performers, stage monitoring quality has also improved significantly, allowing them to hear themselves without intrusive feedback, echoes, or phase cancelling.”

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