



Covenant Medical Center Emergency Department Video Wall Case Study



THE OVERVIEW

Technology has long been an important asset in the medical industry, reducing time, saving money, and improving patient outcomes. As the healthcare industry looks to the future, organizations are noticing that the benefits of technology reach past the operating room and can improve the overall patient experience.

Waiting rooms and common areas provide medical centers and hospitals with an opportunity to engage, inform and educate visitors using AV technology such as digital displays. As the healthcare industry continues to make technological strides, it is important that patient experience is just as innovative. Digital signage and video walls can be a key contributor to creating a calmer, more inviting space while waiting for care.

Installations such as video walls can turn a stark waiting room into a space that displays vibrant pieces of digital art that change with the seasons, the day, or the minute. A blank wall can be brought to life with a beautiful aquarium, a waterfall or a night sky. These vibrant, engaging, digital canvases can help contribute to a naturally calming environment for patients and visitors.

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Video walls and digital displays in healthcare facilities offer other benefits beyond informing and creating engaging interactive spaces. Studies done by Retail Business Development show that when people are presented with digital signage, they reported a decrease in perceived wait time of 33%, which means a 30-minute wait felt like 20 minutes. When patients enter a hospital, they want to know that help is immediately available. Any reduction in wait time can make a hospital visit less stressful.

THE CHALLENGE

Covenant Medical Center in Lubbock, TX wanted to improve their patient satisfaction and overall patient experience in their Adult Emergency Department (ED). However, the existing walls did not provide much room for digital displays, considering one of the walls was comprised of windows looking out into the hallway.

Patients and their families are often under great stress when they are in a healthcare facility. Whether they are the patient or a loved one, chances are high they are dealing with increased anxiety and might be worried about the outcome of the visit. In waiting rooms and other high-traffic areas with long dwell times, a large digital display can make a big difference in perceived wait times and patient satisfaction.

With this idea in mind, the Covenant Health team began brainstorming how they might positively transform the Emergency Department patient waiting room. “The main goal was simple: to enhance the overall patient experience by providing a comforting and serene space while waiting for care,” stated Walt Cathey, CEO of Covenant Medical Center.

Covenant Medical Center knew their longtime, trusted AV partner, Lubbock Audio Visual, Inc., was the best design-build integrator to guide them through the process, help them select the perfect AV solution and integrate new technology.

The Professional Services and Design Team at Lubbock Audio Visual, Inc. met with Covenant caregivers to better understand the mission and vision of the Adult ED. Familiarization with the actual physical space and the patient experience was an integral part of the initial conversation and project discussions. The team learned how the Emergency Department patients and medical professionals interacted with each other during a typical visit to the Emergency Department.

At that point, Lubbock AV's designers and engineers were required to mentally immerse themselves into the patient process to better enable and understand their experience, and what could be applied to create a sensitive and transparent experience for the patients and caregivers' needs.

Covenant caregivers, with the careful guidance of Lubbock AV, eventually decided that two video walls would provide the digital canvases they were looking for while also creating an immersive, ever-changing environment.

After deciding on the size and location of the Adult ED waiting room video walls, Covenant Health and Lubbock AV teams started to think about the hardware, software and perhaps more importantly, the content. One of the main challenges in regards to content creation was understanding that all of the content needed to be designed, produced and approved before the video walls were installed and online.



THE SOLUTION

Jason Sharp, Senior Project Manager at Lubbock AV, was responsible for coordinating the careful technology integration in the public ED space at Covenant Medical Center. His charge was to leverage the technological strength of Lubbock AV and apply a flexible and collaborative approach to execution that was sensitive to the value of complex technical design, aesthetics and the visitors experience.

Lubbock AV recommended two different size video walls for the Adult ED waiting room. The larger of the two was a 15-screen media wall in a 5x3 configuration with landscape-mounted displays and native resolution of 9600x3240 pixels. The other was a 4-screen media wall in a 4x1 configuration with portrait-mounted displays and native resolution of 4320x1920 pixels.

For the digital display hardware, they selected Barco UniSee 55" bezel-less tiled LCD video wall platform. The no-gap technology, which makes the inter-tile gap barely noticeable, coupled with a mounting structure featuring automatic alignment, were important factors in the platform selection process.

BrightSign XTx44 Series media players and a TVOne CORIOmaster processor were chosen as the playback devices for the video walls.

Sharp explained, “The positive and successful outcome of this work was dependent upon our ability to think and operate outside the traditional shell in pursuit of innovation across several disciplines. We were able to partner with manufacturers who were willing to customize their product offerings to allow us to work through unique challenges associated with the job. Barco, Brightsign, TVOne and Custom Display Mounting Solutions all took ownership of the unique challenges that typically accompany large and complex projects in legacy facilities and helped with the process of overcoming issues as they were revealed.”

Both Lubbock AV and the Covenant Health team knew they needed an experienced and reliable creative group to produce the quality, variety and quantity of video wall content necessary to bring their vision to life. After researching creative agencies specializing in digital signage and video wall content production, Lubbock AV discovered Render Impact’s work through the AVIXA network.

Render Impact wasted no time creating a Pre-Visualization (PreVis) to show Covenant Health and Lubbock AV, which consisted of various content design options for their new video walls, well before the hardware was even ordered. This creative and collaborative approach met Covenant Health’s vision, and Render Impact was soon on-board as the creative agency for the project.

The content planning and strategy was a collaborative effort involving all stakeholders and was guided by the Render Impact team. The goal was to produce a variety of content including historical footage, health trivia, CG digital art, longform stories, branding and seamlessly-loopable, custom CG content such as a waterfall, night sky, fields of flowers and other calming scenes.

Render Impact presented concepts to the stakeholders using vision boards consisting of sketches and style frames. After determining a concept for each video, the important next step was to work out the visual look and layout. “A good sketch artist will save you days if not weeks of work. By creating an illustration of the concept, we were able to keep our client and design team on the same page,” said Dan Maher, Production Manager at Render Impact.



Render Impact used pre-visualizations to show proof of concept and work-in-progress previews to Covenant Health’s team for approval. “Pre-Visualizations work really when collaborating with a client on a project like this. It allows everyone involved in the project to preview the content and understand how it will look from different viewpoints before ever seeing it on the video wall displays,” said Todd Rickenbach, Director of Sales and Marketing at Render Impact.

Utilizing a pragmatic approach to design, functionality and aesthetic requirements typically common to unique projects, Lubbock Audio Visual, working in tandem with Render Impact, developed a solution that produced a connected experience for patients and caregivers alike to display relevant contemporary content for one and all. With the right digital signage content partner, healthcare systems can build a library of diverse content consisting of art, information and anything in between.

THE RESULTS

Covenant Medical Center adult emergency department, in partnership with Lubbock AV and Render Impact, overcame the initial challenges and enhanced patient experience with the addition of the two new video walls.

The immersive, therapeutic digital experience that is now engaging families and patients, is helping to lessen the stress during hospital visits. The video walls have certainly been a key contributor in creating a calmer, more inviting atmosphere for patients and loved ones.

After completion of this project, Lubbock AV met with Covenant Medical Center ED representatives to gain feedback about its implementation. They were told that after spending significant time with patients in the ED Waiting Room, in order to get a better understanding of the video wall's impact, they were convinced that the project was an overwhelming success.

The Covenant Emergency Department personnel stated, "The immersive and therapeutic digital experience that is now engaging patients and their families is helping to lessen the stress during hospital visits. The video walls and content have certainly been a key contributor in creating a calmer, more inviting atmosphere for patients, families and hospital staff members."

Render Impact will continue to develop new concepts for the video walls in order to build a larger library of content and keep it fresh. Some of the current videos include a custom created CG Waterfall, American Flag, Night Sky, Eagle Flying, True/False and Multiple Choice Health Trivia, Nature Scenes, 3D Animations Incorporating Success Stories, Animated Brand and Mission Values and a Timeline Video Celebrating 100 Years of Covenant's History.



[Click here to view the dynamic content playing on the Covenant Medical Center Adult ED Video Walls.](#)

"One question we asked ourselves again and again during the production was: Can your eyes get lost in this scene? We wanted to make calming videos that pull viewers in a little deeper. Something that expands that needed distraction at a tense time," added Dan Maher.

Some of the content, such as the CG Night Sky and Waterfall, were developed to loop seamlessly so they can be enjoyed for longer periods of time before the next scene appears on the video wall. The Lubbock AV team actively manages the content playlists to ensure the best patient experience possible.

According to Brian Wagon, Lubbock AV's VP and complex project lead, "We believe that we have achieved the owner's goal and have played an important role in an effort that is exciting, functional and aligned with our customer's creative vision."

CovenantHealth

Covenant Health has served for more than 100 years as the only faith-based, clinically integrated health network in the West Texas, eastern New Mexico region providing a Christian healing ministry. Covenant's network includes seven hospitals, more than 1,000 licensed beds, more than 6,000 caregivers, nearly 100 primary care providers, and a medical staff of more than 600 physicians at its cornerstone facilities.

Learn more at <https://www.covenanthealth.org/>



Lubbock Audio Visual, Inc. is a privately-held Texas Corporation founded in 1978. Authorized for over 300 manufacturers of professional video, audio, and telecommunications products, Lubbock Audio Visual, Inc. functions as a total systems solutions provider to broadcast, education, government, religious, business/industry, and specialty security markets. Lubbock Audio Visual, Inc. specializes in design-build efficiency driven solutions that require a practiced, experienced, and trained staff of individuals with the ability to provide consulting, estimating, value engineering analysis, scheduling, and computing services from within our own in-house base of resources.

Learn more at <https://lav.com/>



Render Impact produces dynamic digital signage content for thousands of screens that reach millions of viewers every year. Render Impact helps businesses and brands engage their target audiences with powerful multimedia content customized for the location of their digital signage displays and desired effect. The Render Impact team takes a collaborative approach to each project and prides themselves on high quality design, top-notch customer service and quick turnaround. Whether you have one small project or 50 large projects across a multi-channel network, Render Impact has a solution to fit your needs. No project is too large or too small and the same can be said about the screens on which it's displayed.

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