**CASE STUDY** 



# CRUX Future-proofs AV Experience for the Mansfield Independent School District's Dr. Jim Vaszauskas Center for the Performing Arts

Delivering an outstanding audio-visual experience has always been the core mission of the Mansfield Independent School District's (MISD) Dr. Jim Vaszauskas Center for the Performing Arts in Mansfield, Texas. So, when the amplifiers on the existing line-array loudspeaker system began to fail, the facility's staff knew they had to act. Yet, with a full schedule of upcoming performances, the center had only a brief window during which to upgrade the system and ensure a consistently exceptional sound.

To deliver the performance audiences expected, MISD turned to the partner who had guided it through an earlier renovation of its professional development center. Having reopened that center to rave reviews, MISD trusted CRUX Technology & Security Solutions to help it achieve an <u>extraordinary AV experience</u> for performance hall attendees.

## **SPECIFYING A MODERN AV SOLUTION**

CRUXs assessment of the performance space quickly identified the need for a significant audio upgrade. To improve the sound, the facility would also require modern <u>network infrastructure</u>. Moreover, failing equipment made speed a necessity, even as pandemic-related material shortages made sourcing a challenge.

Whereas CRUX had previously worked hand-in-hand with MISD to vet vendors and contractor partners, this time around MISD placed their trust in CRUX to help them select qualified partners with strong reputations, solid roadmaps for future maintenance and updates, and flexible systems that could stand the test of time.

CRUX recommended filling the 5,500-seat auditorium with 67 Electro-Voice X2-212 line-array loudspeakers, ten Electro-Voice X12-125F subwoofers, and 16 Dynacord IPX 20:4 power amplifiers for a sound system worthy of hosting major touring concert events. The suggestion was guided in part by the vendors' ability to meet the projects' demanding timeline and AV needs. The products' performance during power outages was another important



# **PROJECT DETAILS //**

#### Size:

» 142,000-square-foot facility

**Construction Cost:** 

» \$2,100,000

#### **Completion Date:**

» Fall 2019

#### **Owner:**

» Mansfield Independent School District

#### **CRUX Design Team:**

- » Mason Brooks
- » Daniel Bruce
- » Gale Moericke
- » Rosalie McGee

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criterion for a venue that serves as a school district reunification point despite a history of blackouts. The system's Eco-Rail technology acts as a battery backup until the building's backup generators kick in, ensuring there is no wait before sound is fully restored.



To support the new equipment, the dated proprietary AV interfacing solution was replaced with a modern Dante network for greater equipment interoperability.

Because the renovation was limited in its ability to add new conduit runs, the CRUX team identified the central catwalk as the best location from which to install the new subwoofers. Additional evenly spaced arrays of equipment

spread across the back and sides of the room. The plan was to run 300 feet of CAT cable to connect the Dante network to the centrally located amps, with additional 300- to 400-foot runs of copper connecting the various speakers.

### ADDING STRUCTURAL AND VISUAL SUPPORT

The new system would provide a significant audio upgrade, but it also added thousands of pounds of additional weight to the roof structure. Before installation could proceed, CRUX had to ensure the facility's roof could support the added weight. After connecting with the structural engineer who had designed the original roofing system, they were able to develop the support needed to ensure a safe installation.

Once the centrally located equipment racks were installed, it became clear that, from certain seats in the balcony, the sound system would interrupt views of the video projection screen over the stage. An inspired suggestion from the MISD facilities team led to the installation of two separate screens, one on either side of the stage, ensuring clear views from every seat.

# LONG-TERM SOLUTION FOR FLEXIBLE OPERATION

While the AV quality was the priority for this renovation, CRUX also advised a number of changes to ensure a more flexible and user-friendly system. Among other solutions, they advised installation of a new digital console with expanded interoperability.

The performing arts center's facilities team has also gained unified control of both performance spaces, with the ability to remotely set up, operate, or troubleshoot

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the AV system in the performance hall and professional development center. Rather than waiting on a technician to come into the room, a phone call to a system admin can ensure issues are quickly resolved.

CRUX also ensured that the venue operator would be in good hands even after the CRUX team finished their work. By supporting MISD through the installation contractor bidding and selection process, MISD gained another long-term partner with a clear process for responding to warranty calls and a roadmap for how they would address end-of-life product issues.





### **OPENING TO RAVE REVIEWS**

To meet the Center's timeline, work on the performance hall moved swiftly, with the entire installation process completed within three months. When the first performances were held, theater stakeholders returned to familiar seats and an entirely new audio and visual experience. The reviews have been entirely positive. Not only has MISD cemented the Center's status as an exceptional performing arts venue, but it's gained peace of mind that any future issues can be easily handled.

To learn more about this project, watch the video here.

# LEARN MORE ABOUT CRUX //

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