Hospital In-House Studio Relies on Dante Domain Manager

Going the Distance to Deliver Unique City-Wide Children's TV Programming

Children's Minnesota is one of the largest pediatric health systems in the United States. With two hospital locations, 12 primary care clinics, six rehabilitation centers and nine specialty care sites, Children's Minnesota is the only health system and Level 1 Trauma Center in Minnesota that provides care exclusively to children, from prenatal health through young adulthood.

With the goal of championing the health needs of children and their families, Children's Minnesota goes above and beyond to deliver an experience like no other. These experiences help the hospitalized children be kids again, and forget that they are sick or injured. To accomplish this, Children's Minnesota has its own, in-house TV studio and TV channel, providing memorable experiences for patients and their families as a positive alternative to mainstream and commercial television.

Star Studio is the hospital's in-house television studio with production spaces located on both the Minneapolis and St. Paul campuses. Star Studio programming is shown on Children's own 24-hour television channel. In addition to pre-recorded programs, Star Studio also produces twelve unique, live and interactive shows a week.

Organization
Children's Minnesota Hospital

Location
Minneapolis and St. Paul Minnesota

Industry Segment
Healthcare

Solution
Dante-Enabled Products, Dante Domain Manager

Primary Function
Connect, manage and secure city-wide studio audio network

The live shows allow patients to interact with the program through the hospital room telephone, or through an internet connection from their home. Children's has recognized that its patients become attached to the shows and the characters, so Star Studio gives patients this experience even after leaving the hospital via the Star Studio website.

Dante Connectivity

To increase production efficiencies and to provide better audio quality for the studio's interactive game show programs, Ben Diger, Star Studio Broadcast Engineer at Children's Minnesota, began using Dante-enabled equipment and the Dante Via software in July 2017 for the multi-channel routing of computer-based audio.

Dante is the de facto standard, multi-channel digital media networking technology from Audinate that uses standard IP infrastructure—not traditional analog cabling—to network audio devices, making interoperability easy and reliable. By getting rid of analog cables, Dante eliminates noise, hum and channel limitations. Dante Via software allows any computer based audio to easily be networked, including audio from software applications, built-in microphones and peripherals.

"With live and prerecorded content, audio is 80 percent of the experience, and if we have bad audio, no one's going to watch," said Diger. "Producing a show with high-quality, professional audio is a must for us. Dante allows us to do this."

The Dante audio network platform allowed Diger and his team to pull in separate game show audio and music channels, as well as microphone and headphone channels, from a single computer, creating a virtual studio. The team also uses Dante to tie together its intercom system over the network, instead of traditional XLR cabling.
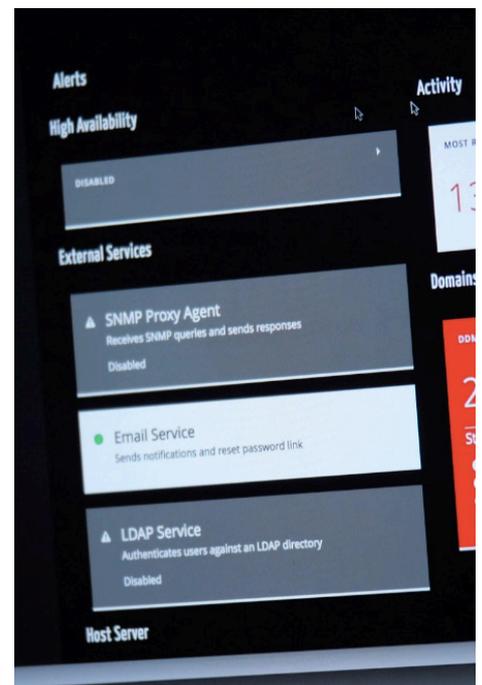
Domain Management

After gaining the much-needed, Dante-enabled boost in connectivity and quality for the live game show productions, Diger and his team looked to expand Dante connectivity into the greater studio system. Star Studio was using a digital/analog system to connect the two large studios—which are 12 miles apart—but the setup was very channel limiting, making changes was difficult, and there were noise and latency issues.

Diger explained that the hospital campuses are connected over fiber. With two Behringer X32 mixers with Dante cards in place, Diger turned to Dante Domain Manager to link the two subnets. Audio data is transported over the Dante network to computers in each studio that accept and convert the data for the audio mixers.

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Dante Domain Manager

With Dante Domain Manager in place, Star Studio's audio is efficiently integrated into a single, manageable and secure audio network over IP that won't disrupt or delay any of the hospital's audio needs. Dante sends near-perfect audio from one mixer to the other across town, with far fewer cables and almost no delay. The result is a high-quality, efficient digital audio integration that helps keep hospital programming engaging and entertaining.

Dante Domain Manager is network management software that enables user authentication, role-based security, and audit capabilities for Dante networks while allowing seamless expansion of Dante systems over any network infrastructure. Dante Domain Manager organizes a network into zones called "domains" that each have individual access requirements, making it clear and easy to know who can access any area of the system. All activity is logged, tagged and date-stamped so problems can be quickly identified and solved.

"When we first deployed Dante Domain Manager, I was surprised by how easy it is to use. As soon as we had it installed on our server, it was basically just a couple of clicks, and we were up and running," said Diger. "And it was easy to get our two audio mixers connected, and now that they're set up, it runs flawlessly."

Dante Domain Manager coordinates multiple subnets, allowing Dante audio to be used across networks of nearly any complexity or size. Dante Domain Manager enables audio to be plugged into any Ethernet jack, anywhere on campus, and route the audio data to where it needs to go. Users of Dante-enabled devices do not have to perform any special configuration; Dante Domain Manager completely automates this task.

"Dante Domain Manager perfectly streamlines our workflow by allowing us to access any of our audio sources and destinations from anywhere in our hospitals," said Diger. "Whether it be on our Minneapolis campus or our St. Paul campus, we're able to pull in our program feed or microphones to any of our studios."

Dante Domain Manager brought these efficiency and performance upgrades, along with additional network security, by allowing Dante audio network administrators to determine who can access selected sections of the system, using user authentication that can be tied to existing management infrastructure, such as Active Directory.

Diger sees network security as particularly crucial for future growth. As Star Studio expands—or if the IT department adopts Dante networking for conferencing or other audio applications—the studio and hospital audio must remain separate and controlled by their respective administrators. With Dante Domain Manager, Administrators can be sure that only those authorized are operating the appropriate audio.

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"In a hospital, security is a huge deal. Everything has to be properly secured. Dante Domain Manager delivers that security," said Diger. "Dante Domain Manager is installed in a very secure manner for our internal network, and if we ever use it externally, it's set up correctly."

With the added benefits of network security, user authentication, audit capabilities and the ability to seamlessly expand Dante systems over any network infrastructure, Dante Domain Manager is an essential tool for Children's Minnesota. Diger trusts Dante and Dante Domain Manager to also provide the high quality, near zero latency audio required of listeners.

"We need our content to be a high-quality, positive experience for the children," said Diger. "Dante and Dante Domain Manager allows us to do this in a very efficient, effective and secure way. Dante audio networking is powerful, easy and transparent—it just works."

For more information on the many ways Dante and Dante Domain Manager help audio proferssionals meet their organization's needs, please visit www.audinate.com/braintrust

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Star Studios

https://www.audinate.com/