

Tech Works®

Making Specialized Communication Easy

Project Profile

Community Regional Medical Center's Hybrid OR Relies on Tech Works CI-Series Collaborative Intercom



The Community Regional Medical Center in downtown Fresno, California, offers state-of-the-art treatment for a wide variety of conditions, ranging from cancer to burns to neurological disorders. The flagship of the Community Medical Centers, the Fresno hospital is also a leader in comprehensive cardiovascular services, with more advanced cardiac treatment options than any other hospital in California's 250-mile-long San Joaquin Valley. The center performs about 3,600 cardiovascular procedures a year, and it boasts the only Level 1 hybrid operating room between San Francisco and Los Angeles.

A hybrid operating room is a highly advanced surgical theater that requires a special hands-free communications system, which initially was an issue. "The Fresno hybrid OR did not have an intercom at first," recalls Dusty Pray of Fresno A/V systems integrator Central California Electronics (CCI). "They just had a system that was part of the operating equipment, which was not viable."

The doctors complained about the lack of proper communications, so CCI specified and installed a Tech Works CI-Series Collaborative Intercom system. "The Tech Works CI-Series system is essentially like a kit; you don't have to buy separate components," Pray explains. "It requires only moderate cabling; it costs no more than buying individual amps, speakers, mics, and so forth; and you get a flexible, integrated system."

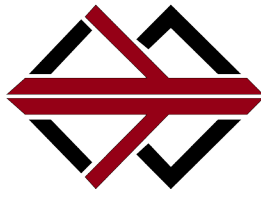


Hybrid operating rooms typically offer advanced medical imaging devices, such as fixed C-Arms, CT scanners, or MRI scanners, which enable minimally invasive surgery. The rooms are usually twice the size of normal ORs, and the staffs are multidisciplinary, so good communications are imperative.

To ensure optimal communications in the Community Regional hybrid OR, CCI specified wireless headsets, in addition to a procedural microphone. A single Tech Works CI-HSI-41 Headset Combiner enables the use of up to four standard Plantronics CS-540 headsets and lets them talk

to each other, as well as to other Tech Works CI-Series products. Two Combiners can be connected for up to an eight-headset system. Headset conversations can be played over ceiling speakers and combined with a full-duplex, hands-free intercom.

One might expect wiring such a system to be a major challenge but that was not the case at Community Regional. "With newer hospitals, cabling is generally up in the ceiling space, in cabling ducts," explains Pray.



Tech Works®

Making Specialized Communication Easy

Continued from other side

“The Fresno hybrid OR was a newly converted space with all-new wiring. So cabling was not a big problem. We mostly had to account for whether, when the room was constructed, sound dampening was used in ducts above ceiling or in the air handlers.”

The Fresno hybrid OR features an armature track in the ceiling that is configured in a crosshatch pattern (north-south and east-west), extending almost from wall to wall. “The arm, like a monitor, can move in any direction on the ceiling and be set in whatever orientation the doctor needs,” Pray instructs. “The procedural microphone absolutely cannot impede that path, and we also had to take it into account when specifying the number and placement of speakers. That was the biggest challenge.”



Another challenge was ensuring that all of the doctors could be clearly heard. “Some doctors speak softly and talk down toward the patient, so we had to relocate a procedural mic to compensate for that,” notes Pray. “The headset mics help a lot, too.”

Tech Works’ CI-Series Collaborative Intercom system quickly proved to be just what the Fresno doctors ordered, concludes Pray. “They really like it, so they had us put a Tech Works CI-Series system in four other locations at Community Regional. Two years later, they’re still very happy with the system. Since we set up the hybrid OR system, we’ve set up CI-Series systems at a sister hospital’s IR lab and CT lab. So far we’ve installed at least seven such systems, all of which have been very well received.”

For more information on CI-Series systems, please visit:
<http://www.tech4people.com/portfolio/cath-lab-procedure-room/>

About Tech Works

Tech Works is a US-based manufacturer of high-quality, highly specialized communications systems for the healthcare, security, corrections, and education industries. Based in Yorba Linda, California, Tech Works was founded in 1984 with the goal of creating powerful communications solutions for the most demanding environments. Our products are designed to meet the unique challenges of our customers, in applications where clear communication can be critical.

www.tech4people.com