Case Study: Healthcare

Providence St. Vincent Medical Center

Providence St. Vincent Medical Center future-proofs its critical paging system with a solution from Integrated Systems Group.

Many know Providence St. Vincent Medical Center in Portland, Oregon, because of its nationally recognized specialty programs. It is the only Oregon hospital to make the list of Thomson Reuters 100 Top Hospitals, and it has made this prestigious list ten times. Others are familiar with its maternity services—given that about 1 in 8 babies in Oregon are born at the medical center each year, more than any other medical facility in the state. In 2010, this renowned Northwest facility recognized that it needed a paging system that was on par with the standard of care it was known for. Facility staff and stakeholders saw the need for a system that could deliver reliable, superior intelligibility, so every critical page would be clear, understandable and go through every time. In addition, they wanted a system that could accommodate the medical center's requirements for expansion and safety in the future.

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>
> *–Jim Gainer,*
> *TSS Instrumentation for Providence St. Vincent Medical Center*

THE CHALLENGE

Providence St. Vincent Medical Center took action to replace its existing critical paging system and contracted Integrated Systems Group (ISG)—one of the largest electrical contracting companies in the Northwest—to install the new system. Specializing in commercial, healthcare, high tech, industrial and institutional markets, as well as in-house design, build and energy conservation services, ISG came up with a plan to address the medical center's needs.

As the team at ISG assessed the existing system in an effort to develop a replacement system, they found several issues that needed to be addressed. "The most significant issue was the sound quality and the need for louder paging for emergencies," says Jim Gainer, the medical center's Manager of TSS Instrumentation. Due to the inconsistent sound quality and the fact that some pages were being randomly dropped, staff had lost confidence in the system's reliability—a serious safety consideration given the critical nature of code pages.

The existing system also lacked system supervision capabilities, which meant that it was difficult to pinpoint and fix glitches and failures. There was no comprehensive set of reference schematics that tracked the wiring and layout of the paging system throughout the facility. Information was piecemeal at best, Gainer says.

Additionally, the team at ISG discovered dead-end wires that were not connected to anything, broken and cut wires that had not been working, and wires that had been spliced inappropriately for use with other devices. This created a web of cabling that would make it difficult to trace a failure. Since the existing system lacked line monitoring, it never generated warnings about any of these issues.

Finally, the system as it existed would not be able to meet the medical center's future needs. The center needed a system that would allow for the expansion of additional zone paging, paging from remote and multiple locations, logging of paging activities and possibly a life safety interface.

THE SOLUTION

ISG Account Manager Erik McCarty and his colleagues conceptualized the installation of the new critical paging system in three phases. In order to meet the current and future needs of the medical center, they selected Vocia® from Biamp® Systems. Vocia provides a networked, critical paging and voice evacuation system that's flexible and scalable. Built on a decentralized networked architecture, Vocia provides unsurpassed versatility, reliability and ease-of-use. The decentralized aspect of the system was key for this installation—if a paging station were to encounter problems, the system would continue functioning and automatically alert administrators of the issue. This means the system has no single point of system failure and helps maintenance technicians find and address any potential issues.

ISG eliminated many of the paging amplifiers that had previously been scattered throughout the facility and centralized them into a single location. The new system, McCarty says, provides greater versatility, functionality and reliability. "Having a quality digital paging system with supervision, reporting and alarm capabilities provides assurance to the staff at Providence St. Vincent Medical Center that the system will be there for them when they most need it."

The new system, which includes 12 paging stations throughout the facility, provides monitoring of speaker runs, so during a future expansion, it will be easy for any installer—even a new team of people—to pick up and continue where the first phase left off. ISG also installed clean, secure wire runs—so the nests of dead-end, broken and cut wires in the old system are now a thing of the past.

"The benefits of phase one are being experienced every day," Gainer says. Critical pages now have clearer, more consistent levels and sound quality, and staff can confidently rely on the new system. "We know the subsequent phases of the installation will provide even greater versatility and flexibility," he says. These features will be important during phase two, when the system will be expanded to other areas of the medical campus. Because the system is expandable and provides a user-friendly supervision system, Gainer says, "we will have complete oversight of the whole campus so we can proactively address any issues that might arise."

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–Erik McCarty,
ISG Account Manager

CONCLUSION

Thanks to ISG, as the medical center expands the new system to include other areas of the campus, the staff gain peace of mind that it will continue to meet their needs for a reliable and flexible critical paging system—as well as the life safety standards of tomorrow. Since the Vocia system doubles as a voice evacuation system, the medical center has gained efficiencies, and administrators now have this option at their fingertips. It is a truly future-proof system: as their needs grow, they won't need to replace it.

Gainer says ISG's installation of the new critical paging system has equipped Providence St. Vincent Medical Center to meet the community's expectation of excellence. "The new system delivers reliability, flexibility and system monitoring—allowing us to successfully manage our environment of healing."

A smart, networked audio system that helps this medical center meet the community's expectations and stay ahead of the safety curve—that's one investment in the future that, as Gainer says, "will yield returns for many years to come."

ABOUT BIAMP SYSTEMS

Biamp Systems is a leading provider of innovative, networked media systems that power the world's most sophisticated audio/video installations. The company is recognized worldwide for delivering high-quality products and backing each product with a commitment to exceptional customer service.

The award-winning Biamp product suite includes the Tesira® media system for digital audio networking, Audia® Digital Audio Platform, Nexia® digital signal processors, Sona™ AEC technology and Vocia® Networked Public Address and Voice Evacuation System. Each has its own specific feature set that can be customized and integrated in a wide range of applications, including corporate boardrooms, conference centers, performing arts venues, courtrooms, hospitals, transportation hubs, campuses and multi-building facilities.

Founded in 1976, Biamp is headquartered in Beaverton, Oregon, USA, with additional engineering operations in Rochester, New York, USA and Brisbane, Australia. For more information on Biamp, please visit www.biamp.com.