

**BOSCH**

Invented for life

No more lost medical emergency calls

Customer story

How Houston Methodist Hospital handles up to 3,000 call events per day without losing a single call

At large-sized medical facilities, reaching doctors and support staff in real-time via page notifications can be a matter of life and death. Houston Methodist Hospital needed a fully digital page notification solution connecting eleven clinical buildings on its expansive medical campus. But how could the critical communication system be upgraded without disrupting clinical workflow?

The Texas Medical Center (TMC) in Houston is the world's largest health sciences campus offering over 40 medical facilities to 7.2 million visitors per year. One of the largest medical services providers at the TMC is Houston Methodist Hospital with ten specialty clinic buildings, plus the new 22-story Paula and Joseph C. 'Rusty' Walter III Tower. Given the immense size of these facilities, the ability to reach doctors and medical staff immediately – and at any location on Houston Methodist's 930,000 square-meter grounds – is key for a timely emergency response.

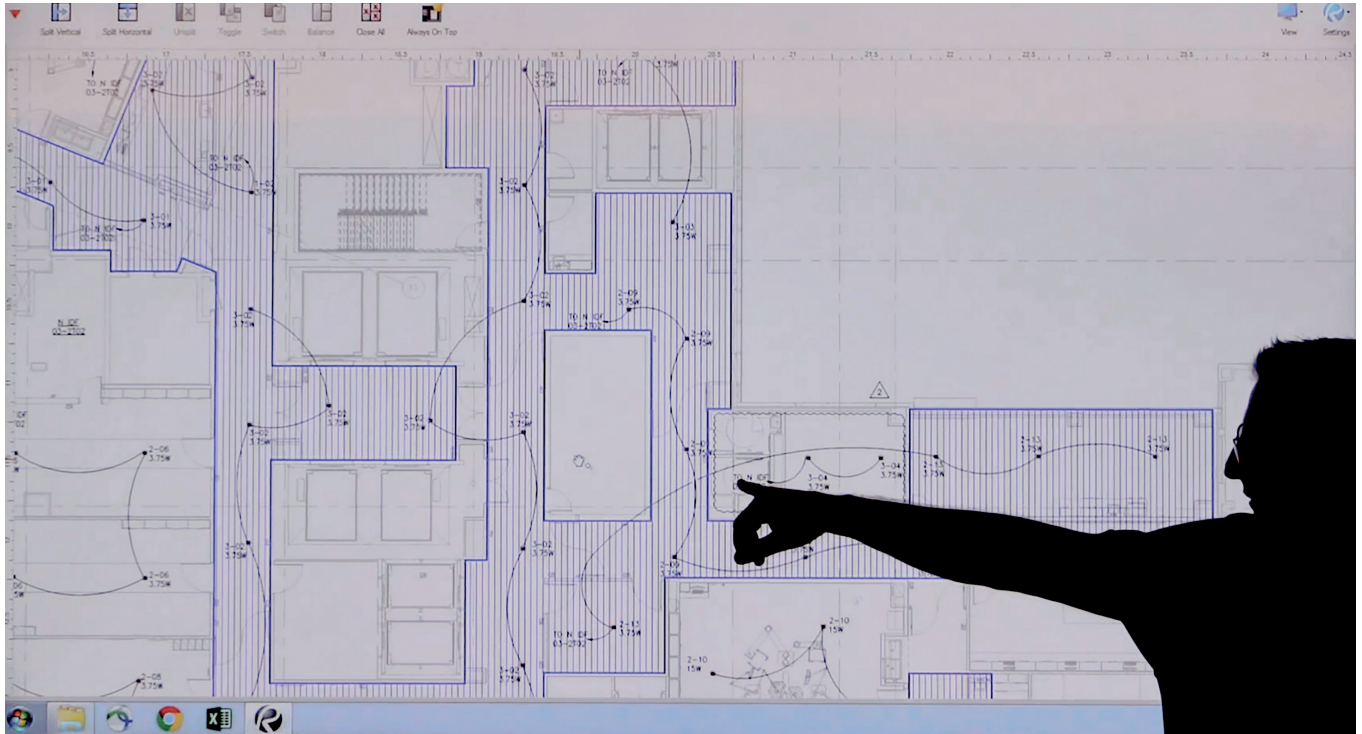


So-called overhead 'page' alerts via loudspeaker are the most important notification method across Houston Methodist Hospital's campus. Broadcast over 3,000 times per day, these voice alerts include medical codes – for instance 'code blue' for a failing heart rate – to call for support in emergencies. But when Bosch integration partner Walker Engineering performed an assessment of the hospital's paging and public address systems, the experts found a combination of older analog systems that were inadequate for the needs of a modern medical facility. What's more, the fragmented system was losing several critical calls every day and clinic operators had no visibility of outages or device malfunctions on the line.

Connecting expansive hospital campus on a single platform

Facility managers at Houston Methodist Hospital were ready to upgrade from their patchwork analog system to a modern digital solution. They needed a reliable paging system offering clear and intelligible voice broadcasts without losing calls. Another goal was to harmonize all

connected hospital buildings in a centralized network, allowing system-wide calls next to building-level and floor-level messages. And most importantly, Houston Methodist needed to perform this upgrade without interrupting hospital operations during the transition.



As the backbone for a reliable and integrated solution, Walker Engineering chose the PRAESIDEO Digital Public Address and Voice Alarm System from Bosch. The scalable system allowed the team to design a fail-safe digital distribution network across the length of the entire campus. And without interrupting clinical workflows, the team performed the rollout in stages at a fast turnaround – installing the digital paging solution building-by-building – without the need to take critical components of the communication system offline.

“Bosch enabled the Integrator to come in and get a reliable paging system up and running with minimal disruption to the Hospital’s operations. The team incorporated a large number of existing speakers and amplifiers and never had to take the campus communications offline.”

– Nicolas Betancur, District Sales Manager at Bosch Building Technologies in Houston



Reliable performance on a large scale

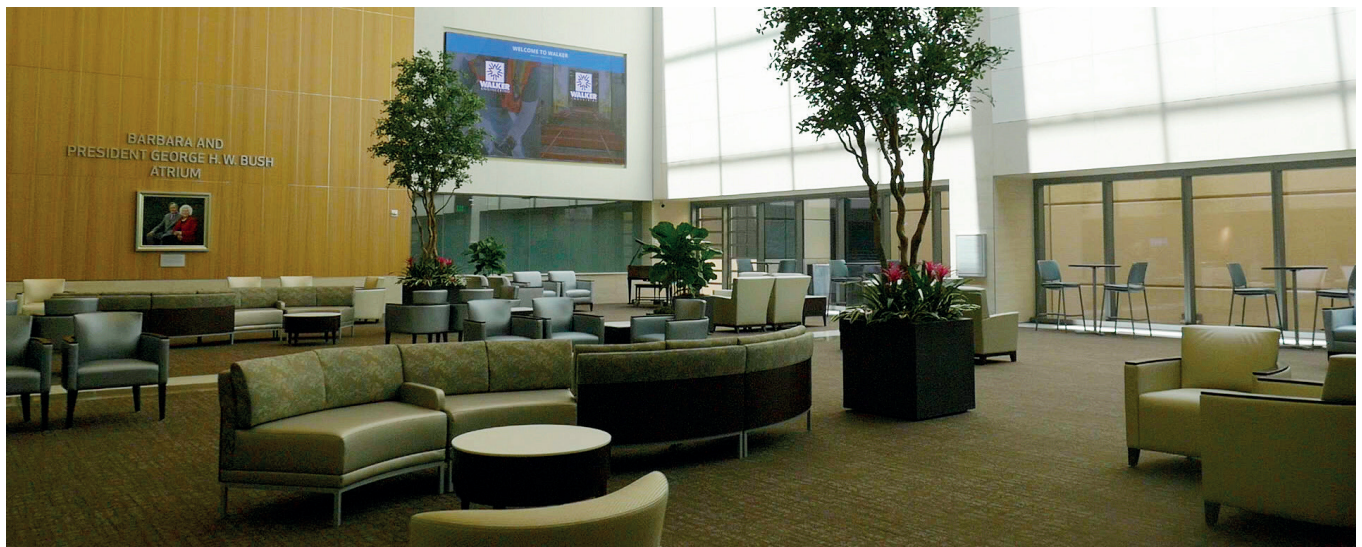
Installed on a total of 14 interconnected PRAESIDEO systems, the solution reaches nearly 7,000 speakers across 126 zones with crystal-clear audio broadcasts. This system architecture allows operators to send page calls to the entire network or individual floors or buildings. Offering such a level of control at a large scale is an important achievement, said Matthew Kenjura from Walker Engineering in Houston: "We were successful in harmonizing communication solutions across the expansive clinical campus in what is now the largest PRAESIDEO installation in North America and one of the largest worldwide."

The system's performance regarding speech intelligibility is exceptional – also thanks to Bosch clear-sound ceiling loudspeakers – which allows nurse staff and security personnel to use the system for a variety of public announcements functions, for instance during weather events. But what is clearly the most important benefit: no more lost emergency calls.



“The system now handles up to 3,000 call events per day without losing a single call.”

– Nicolas Betancur, District Sales Manager at Bosch Building Technologies



In the future, the PRAESIDEO Digital Public Address and Voice Alarm System at Houston Methodist Hospital can easily accommodate the addition of further new buildings and specialized clinics. After achieving a future-proof

upgrade on a large scale, Houston Methodist serves as an important reference project for the advantages of end-to-end digital communication in clinical environments around the world.