

# Speech Privacy CASE STUDY



Saint Thomas Hospital, Nashville, TN,  
Member of the Ascension Health System



A 541 bed teaching hospital, Saint Thomas *has more than 3,500 employees and 750 physicians on staff to provide adult specialty health care to a market area of more than two million residents of Middle Tennessee, Southwestern Kentucky and Northern Alabama. In the 2005 HealthGrades hospital quality ratings, Saint Thomas Hospital was ranked No. 1 in Tennessee for overall cardiac services, heart surgery and cardiac interventions.*

Anyone who has had a hospital stay knows how difficult it is to get uninterrupted rest. Normal anxiety is compounded by abnormal amounts of noise. The general sounds of commotion bounce off linoleum floors, cavernous hallways, and hard walls. Then there's the noise of delivery carts, neighboring patients and their TV's and, of course, P.A. announcements. Historically, Press Ganey (a leader in providing scientific tools to help the healthcare industry measure on-site performance) customer satisfaction surveys show that noise and the resultant lack of rest are significant patient dissatisfiers.

When Ben Pethe, Director of Facilities Management at Saint Thomas Hospital, learned about a new overhead speech privacy system –



Ben Pethe, *Director of Facilities Management*

Confidante – from Daryl Dunn, Director of National Accounts at the Steelcase Dealer, IDS, he decided to test it in a limited area. The reason

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was simple: “One of our dissatisfiers in any patient survey – our lowest score – is noise in and around the room. The bottom line in the hospital is people have to be able to sleep; you’re not here because you want to be.”

Pethe had previous installation experience at another hospital with a plenum-based sound masking system. It proved effective although installation was cumbersome. Confidante’s plug-and-play installation was attractive to Pethe: low voltage, no additional infrastructure, and economical. Pethe also noted that since Confidante is from Details (a Steelcase company), it gave him confidence to conduct a test with a company that has a proven track record.

*“The results were dramatic – a 33% increase in patient satisfaction.”*

So in December 2005, he had 24 emitters – one per room – installed in one wing at Saint Thomas. Like every hospital, Saint Thomas is in a “customer satisfaction business” and Pethe believes the best way to measure the actual return on investment for this installation is via follow-up patient surveys. Approximately four months later, the hospital’s post-stay Press Ganey survey of 57 patients on the issue of “noise in and around the room” showed statistically significant promise. “The results were dramatic – a 33% increase in patient satisfaction,” said Pethe. “In this setting, for that kind of money, if you can improve patient satisfaction, that’s a good return,” he added.

As a result of the initial test, Pethe expanded the system into both the Orthopedic and Medical Surgery floors. Furthermore, to help address the privacy issue of doctor/nurse consultations, Saint Thomas has installed the emitters in the hallway above the nurse servers – just outside patient rooms – where these consultations take place. He believes the installation will help fulfill the hospital’s HIPAA compliance requirements.



Marco Fernandez, hospital patient in a room close to the nurses’ station  
*“When the door is closed and it’s (Confidante) on, it really minimizes the noise outside. It’s soothing... it just kind of brings about some peace.”*



William B. Sturgeon, hospital patient

*“I like to know what’s going on around here so I asked what it (the emitter in the ceiling) was. They told me it was a noise suppressor and that’s what I’d call it. I saw these in other places where they have open offices, but this is the first time I saw one like this. As far as I know it’s doing its job... this is a quiet place.”*

If timing is everything, then Pethe’s timing for the Confidante test was impeccable. It tied in with the “Transforming Care in the Workplace” initiative that Doris Van Mullen, Nurse Manager of General Medicine and Renal Diabetes, and her staff, had begun to implement. The goal of the program was to improve efficiency while delivering high quality care. She went on to explain that “Sleeping is healing to us. So we folded this project (noise reduction) into ‘Transforming Care at the Bedside.’ We’re not in the mindset of same ol’, same ol.’ We’re in the mindset of let’s change nursing.”

## Quantification Study: April 3 - April 5, 2006

Executive Summary – May 3, 2006

And as part of its on-going analysis, Saint Thomas hopes to correlate Confidante to the amount of pain medication a patient requires as well as to the length of stay to determine if there is any cause and effect relationship.

*“... this just seemed to be successful from the very beginning. It’s working to do what we need to have done: to reduce noise so we can give patients a better quality of rest.”*

As Van Mullen summarized her thoughts she said, “It’s nice to have such a project work so well. You know there are always things that are negative or don’t work and then you try to figure them out. But this just seemed to be



Doris Van Mullen

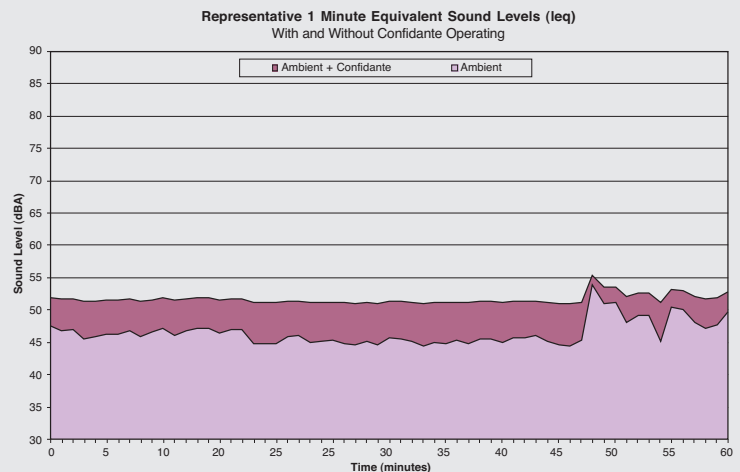
*Nurse Manager of General Medicine and Renal Diabetes*

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*Case Study co-authored by:*

Ben Pethe, Director of Facilities Management  
Saint Thomas Hospital, Nashville, TN  
and Details, Inc., Grand Rapids, MI

Continuous and consistent background sound levels result in a more comfortable environment and help to reduce annoyance that an individual experiences as a result of intruding noise. Knowing this, Saint Thomas Hospital was interested in quantifying the effect of Confidante Speech Privacy System prior to installation throughout the facility. Acoustics By Design (ABD), an independent acoustical consulting firm, visited the hospital to measure the ambient sound levels in the patient rooms. Prior to ABD’s visit, Confidante was installed in 24 patient rooms on Floor 6B. ABD measured background noise levels in five locations over a 48-hour period on floors 6B and 5C (where the system was not installed). Both are general medical/surgical floors.



*Actual sound measurement reading that depicts a more even, continuous background noise level with Confidante.*

The rooms chosen represented a location at the ends of each hall and two rooms in close proximity to the nurse’s station where noise levels typically are highest. All patient rooms were similarly occupied single bed – “private rooms.”

Based on these measurements, the noise levels in rooms with a Confidante Speech Privacy System were approximately 5 to 10 dBA higher and more consistent than the noise level in patient rooms without Confidante. Assuming that background noise levels on the two floors were similar, and that the noise levels in the patient rooms were most highly influenced by the noise from the nurses’ station, a higher and continuous background noise level in the patient rooms will tend to mask the noise intruding from the hallway resulting in greater patient noise level satisfaction.

ACOUSTICS BY DESIGN, INC.

Per:

President

Acoustics By Design, Inc. (ABD), based in Grand Rapids, MI, is an acoustical consulting firm specializing in the field of architectural and environmental acoustics.

Since Acoustics By Design neither represents nor sells any products or materials, its advice is unbiased.



*Objectives:*

- To improve Press Ganey scores related to “noise in and around the room”
- To support the staff’s “Transforming Care in the Workplace” initiative

*Action:*

- Limited test of the Confidante speech privacy system in patient rooms and in hallways above consultation areas
- If warranted by preliminary test results, expand to other wings

*Results:*

- An initial 33% increase in patient satisfaction as measured in Press Ganey surveys of “noise in and around the room”
- Favorable anecdotal response from patients and staff

*Next Step:*

- Extend the Confidante speech privacy system to all remaining patient care wings throughout the entire hospital

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