

Technology from Intelligent InSites and CenTrak allows Rockhill Mennonite to know the locations of its residents and employees in real time, enabling faster responses to calls for assistance, as well as documentation of patients' activities and care.

By Claire Swedberg

Mar. 17, 2010—[Rockhill Mennonite Community](#), a continuing-care retirement compound located in Sellersville, Penn., has adopted a real-time location system (RTLS) enabling management to know when residents require assistance, to know where patients and workers are located at any given time, and to trace back the care residents have received, and the activities in which they participated. It also allows staff members to receive an alert when residents may be straying toward an area considered off-limits, such as an exit.

The organization installed the system one year ago at its assisted-living facility, then decided, last month, to deploy it at its nursing home as well. The system consists of a software application called InSites Enterprise Visibility Platform, provided by [Intelligent InSites](#), as well as RFID hardware from [CenTrak](#).



*Ron Sawatsky, CEO of
Rockhill Mennonite
Community*

Rockhill Mennonite has a reputation for high-quality care, says Mark Nowakowski, CenTrak's VP of sales. The compound had a vision for a system that would provide better data regarding its residents' status and location, he explains, both for use in real time and for records that could be utilized by the business to improve treatment plans, or to share information about a particular resident with family members. According to Houston Klassen, Intelligent InSites' VP of sales and marketing, Rockhill Mennonite began working on a design for the system approximately two years ago, intending to first launch it at the assisted-living facility, which is smaller in size than the nursing home. The assisted-living facility has only 33 residents and 33 rooms, all of which were included in the system, along with eight staff members on each of three shifts. The organization sought a system that was technology-agnostic, enabling other existing systems, such as security, to be linked to it on a single platform.

About 175 battery-powered infrared (IR) location beacons are deployed throughout the nursing home and assisted-living facilities. Each beacon transmits its unique ID number over an IR signal that is then received by any of the CenTrak hybrid active 900 MHz RFID and infrared IT-710 pendant tags used by the staff, as well as the IT-720 tags utilized by residents, that are in the vicinity. The tag transmits that location beacon's ID number via RFID, along with its own unique ID, to one of the 26 readers installed on the sites. The readers receive that information and forward it to the back-end system via an Ethernet cable. It also sends an acknowledgement back to the tag, via RF.

In the software, the tag's location is calculated based on the IR beacon's ID number, and is linked to such resident data as his or her name and photo. The software can be customized for each resident to

create specific perimeters, such as sending an alert if a particular individual reaches a specific location (an exit, for example), in the case of someone who has a tendency to wander. In this way, the resident need not have his or her movement restricted, because employees know they will receive an alert if that individual moves beyond an acceptable area.

If a resident calls for help by pressing the tag button, the alert status and the tag's location are transmitted to the reader, which again forwards that information to the software. The software then sends the data to staff members' PDAs or pagers, thereby alerting them that a resident requires assistance. The software also provides a map view of the facility, with an icon representing each staff member and resident as he or she moves around the compound, and can highlight the person with the alert status, so that workers can head to that specific location.

Other systems have been integrated onto the InSites platform, Klassen says, including the paging system, wireless PDA communications and bedside devices with cords that residents can pull in order to call for help instead of having to press the CenTrak tag's button.

When Rockhill Mennonite added the system to its 90-bed nursing-home facility last month, it also linked the system to nurse call lights, so when a resident in his or her room presses an alert button or tugs on a pull cord, the InSites software receives that resident and room number data, and causes a light above the door of that person's room to illuminate. The staff is also alerted via their pagers or PDAs, and the alert continues to be sent until an employee indicates he or she has responded to the call. If no one responds, the alerts are then issued to management.

Rockhill Mennonite is still exploring ways in which the data can be used, says Ron Sawatsky, the organization's CEO. Thus far, by tracking its staff, the compound is able to create accurate records of the response time for alert messages, as well as track the timeliness and frequency of staff visits with a resident, and assess productivity in delivery care. The system can be used to help locate staff members in real time, he adds, and also makes it faster for workers to locate patients.

"Staff have commented on their sense of improved productivity after implementing the InSites solution," Sawatsky states. "That equates to additional time that can be redirected towards resident care. It allows us to relax."

The system also enables Rockhill Mennonite to show residents' family members what their loved ones' activities have been, since it tracks when each resident goes to any specific room—such as the activity or lunch room. If, for instance, a resident says she has not left her room for days, the staff can provide a record detailing exactly where and when she went, or confirm that she, indeed, did not leave her room during that span of time.

Because the system is Web-based, Sawatsky says he can also view data from the system on his iPhone, by logging into the system and entering the proper password.