

Princeton Identity's Iris Recognition Technology Shines Spotlight on Elder-Care Facility



Background

Brevillier Village (pronounced "Breh-vi-LEER"), a non-profit senior-living community just outside Erie, PA, is a place its residents are proud to call home. In 2017, it was honored for the first time with the region's prestigious Erie's Choice Award for Best Retirement Facility, an annual competition sponsored by the local newspaper for which over 111,000 votes were cast by community members. "We beat out a much larger facility that had won for the past ten years in a row," says the Brevillier's enthusiastic Director of Development, Dan Desrochers.

Those familiar with Brevillier Village will testify to the high quality of life enjoyed by its residents. The facility offers independent living options as well as services that include skilled nursing, memory support, hospice, personal care and rehabilitation. However, it's the facility's recently updated security technology, which includes a Princeton Identity iris recognition system – the first in the country to be deployed in an elder-care setting – that Dan believes was instrumental in catapulting Brevillier Village into the media spotlight, thereby making the community more widely aware of the facility's offerings and ultimately earning it the accolades it deserves. The installation of the system, just over two years ago, resulted in extensive news coverage, including an article in WIRED magazine, which is read by over 30 million people worldwide each month, and won Brevillier Village a Silver award from the Northwestern Pennsylvania Chapter of the Public Relations Society of America in late 2017.

Security as a Selling Point

As Director of Development, Dan makes it his business to get involved in anything that differentiates Brevillier from its competition. "We are all very regulated by the government and take all the same insurance," he says. "We need to focus on what makes us different." A self-described tech-geek, Dan says that one area that Brevillier sees as a selling point and differentiator is its commitment to security. "We have a really advanced computer system for our electronic medical records, and last year we even took the step of hiring a white hat hacker to try and break into our facility and our systems. We want to make sure that our residents, buildings and records are not exposed to any vulnerabilities."

Physical security is part of that equation, and given that Brevillier Village sits on 1100 feet of Lake Erie waterfront property, there is special sensitivity to the fact that residents with memory impairment or dementia should not be permitted beyond enclosed areas without supervision. That's where the Princeton Identity solution comes into play.

Dan explains, "At Brevillier, one of our buildings is for residents who require 24 hour supervision but not 24 hour medical care. A portion of these residents have some level of dementia. In order to keep this mixed population housed in the same building together – which studies show works to everyone's advantage – we needed a way to allow certain residents to freely leave the building whenever they wanted to, while restricting access for those who should only be permitted outside under supervision.

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Director of Development*

CASE STUDY:

Brevillier Village, a well renowned senior living facility outside of Erie, PA has a prestigious reputation for providing the best service and their commitment to security. The facility's recently updated security technology, which includes a Princeton Identity iris recognition system helps Brevillier Village continue to provide the best service and security to their residents.

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At select doorways, Brevillier had been using keypads connected to the facility's Assa-Abloy Securitron access control system. The codes to the keypads were hidden at each entrance, and staff and non-dementia residents knew where to look for them. While this system was functional, it was not ideal. Residents with tremors or dexterity issues could have difficulty using keypads, and the need to remember the code or check for it in its hidden location required extra effort. In fact, as Brevillier Village had recently applied for certification as a "secure dementia" facility, the state insisted that it deploy a better solution.

The installation of a Princeton Identity iris recognition system, to replace the keypads, satisfied the state's requirements, immediately providing greater convenience to residents as well as enhancing security. Two iris readers were installed at each doorway leading outside, one at standing height and one positioned for use by those in wheelchairs. Now, when non-dementia residents and staff members want to open the door, they simply look into one of these reader devices and, within two seconds, the door is unlocked. No codes or cards are required. For residents with dementia, nothing happens when they look into the readers; the doors remain locked.

As a result of the publicity surrounding the deployment of the Princeton Identity solution, brand awareness for Brevillier Village has skyrocketed within the community. Many months after the news coverage, prospective families touring the facility still mention that they remember learning about the system in the news.

The Technology


Installation and configuration of Princeton Identity's iris recognition system took just days. Cyprian Jabonero, Senior Field Support with Princeton Identity, says Brevillier's system includes two reader "heads" located at each controlled doorway, integrated control units to which the heads connect, and a biometric enrollment device, which is actually a specialized infra-red camera. All hardware connects over the facility's Ethernet cabling to the facility's server room, where a dedicated mini-server runs Princeton Identity's IOM Access Software. System administrators can securely access the software interface from any web enabled computer.

Dan appreciates that the technology uses very little electricity. "If we have a power loss, we have oxygen systems and medical systems that are very high priority for our back-up battery and generators. Because the Princeton Identity system is such a low-load item, we didn't have to upgrade our generators or make any changes when the solution was installed."

Princeton Identity's IOM Access Software piggybacks onto the access control infrastructure that was already in place, allowing residents' eyes, once enrolled, to act no differently than an RFID card. Cyprian explains, "The key to biometrics is always the enrollment. Our system will tell you if it's a good or bad enrollment. As long as we can capture one good eye, the system will still work."

At Brevillier Village, Princeton Identity assisted with enrolling the initial group of residents and staff members who were already using the keypad system. Since then, the job of enrolling additional subjects is handled by the facility's social worker who is responsible for intake of new residents. "She's a non-tech person," says Dan. "The process is super easy. It's like taking a picture with a smart phone. It takes her longer to type residents' names into the system than to register their eyes."

Brevillier Village resident, Joseph Darden, was one of the first to be registered into the system. "I just looked into it [the biometric enrollment device] and it took a picture of my eye, which the system can keep indefinitely," he explains.

A photograph showing the exterior of Brevillier Village, a large, multi-story building with a light-colored facade and a prominent entrance, surrounded by green lawns and trees.

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Photos of each enrolled resident and staff member, along with encrypted data representing their iris, are uploaded to the Princeton Identity IOM Access Software, which automatically shares it with the facility's Securitron access control system's database. (Princeton Identity's software integrates with a wide range of leading access control solutions.) This allows Securitron's reporting feature to immediately call up corresponding names and photos for each instance that a door was unlocked by an iris. “If there's any question about who left the building at a given time, we can look at who had their iris scanned, and then, if necessary, we can check surveillance camera video to make sure that they were the only that person who went through the door,” says Dan. “From a security standpoint, this is far more information than was available using the keypad system, for which everyone shared the same code.”

Convenience in Every Way

Residents appreciate that the convenience of the new system, as do their family members and friends who may pick them up in front of the building to go to dinner or attend weekend events during hours when the front office isn't staffed. In the past, if there was an issue with using the keypad to exit, the resident had to track down a staff member for assistance. Now, using the iris recognition technology, the door unlocks for them with 100% reliability, on demand. “The technology really is amazing,” says Joseph Darden.

Dan, and the IT team, have been pleased at how little maintenance the system requires. “It's been running for over two years now, and it just works. The nature of our facility makes us subject to regular state inspections, and the system always passes with absolutely no problems.”

A Model for Others

Brevillier may be the first elder-care community in the nation to use iris recognition technology as part of its security system, but Princeton Identity hopes that it will serve as an inspiration to other facilities around the world that cater to a senior population. “This project highlights some of the advantages of iris recognition in healthcare and assisted-living applications,” says Princeton Identity CEO Mark Clifton. “On a personal level, I have visited nursing facilities where I've watched seniors struggle to use keypads – even very large keypads. Our technology makes so much more sense. There are no codes to remember, it doesn't require a free hand and it's touchless, making it completely sanitary.”

Dan says, “At Brevillier, we use the technology to keep people in, rather than keep people out, but we could definitely use it the other way, by putting readers on the outside of doors. For residents walking with a cane and carrying a bag or purse, it would be so much easier for them not to have to fumble for a key fob to get into a building.”

During their lifetimes, the residents at Brevillier Village have seen incredible technological advances that have positively impacted their lives in ways both big and small. With Princeton Identity's iris recognition system, they can add one more to that list.