

ConEdison Meets CIP Standards for Multi-Factor Authentication with Princeton Identity's Touchless Solution



In the 140 years since Thomas Edison's original Pearl Street Station began servicing a small number of households in lower Manhattan, the electrical grid of Consolidated Edison, Inc (ConEdison) has evolved into one of the most complex and reliable in the world. Today, it provides electricity to 10 million New York City and Westchester County residents in a 604-square-mile territory. Three priorities consistently define the company's focus: safety, operational excellence, and customer experience.

To deliver against those objectives, security is paramount. Several of its properties are subject to Critical Infrastructure Protection (CIP) Standards and audited by the Federal Energy

Regulatory Commission. Scott Gross, Facility Security Officer at ConEdison, explains, "Certain CIP standards require multi-factor authentication to identify any person who enters a designated facility unescorted. Under no circumstances can we risk allowing bad actors to gain access."

LEVERAGING BIOMETRICS

To enact multi-factor authentication using a biometric modality, the company first relied on hand physiology. The solution required users to flatten their palm against a specialized reader. The technology was effective, but Gross says many people

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didn't like placing their hand on a surface touched by so many others. That was before the COVID-19. In the pandemic's wake, the solution has become unacceptable.

Fortunately, Gross began researching alternatives several years ago. Today, **Princeton Identity's Iris-on-the-Move provides safe, touchless, convenient, and highly accurate biometric identification as part of the company's multi-factor authentication protocol.**

HOW IT WORKS

Princeton Identity's (PI) solution uses the unique patterns of the iris to create a biometric signature for each enrolled user. ConEdison stores each reading as digitized, encrypted code that cannot be reverse-engineered or reused by a bad actor. These are used as a benchmark for verifying the identity of enrolled individuals. Compared to other biometric modalities, the iris is exceptionally stable and reliable. It presents a false match less frequently than once in a million.

When entering buildings that are subject to CIP standards, employees are buzzed into a security vestibule by a security officer. Once there, they swipe their card, enter their PIN, and pause to glance at the small PI reader mounted next to the interior door. In a few seconds, the PI system matches the iris to the user's identity, providing the security guard with

verification that the person has authorized access. Only then does the guard unlock the interior door to the vestibule, allowing them to enter.

To enroll in Iris-on-the-Move, subjects sit before a specialized camera that focuses on nothing but their iris and face. ConEdison has opted to create a designated enrollment booth outfitted with ideal lighting to illuminate the face. At the same time, the PI device provides optimal near infrared iris lighting. To make workers comfortable with the process, Gross shows them the scanned image during enrollment. After the system uses it to create a code or "hash", the image itself is deleted. "I'm not an IT guy," says Gross, "so I appreciate the simplicity of PI's software GUI. All I have to do is enter or update an individual's name within the database, provide their card and PIN, and then associate it with the captured iris image."

USER ACCEPTANCE

ConEdison's very active union has a say in the technologies its members must use while on the job. Gross says that in the current environment, its top concern was that any new system be touchless.

Education was vital in obtaining union buy-in. "We made sure they knew we would be using an iris scan, not a retinal scan," Gross stresses. "When working with the iris, enrolling users and interacting with readers is a non-invasive process. We're just taking a high-resolution photo of the eye, not looking inside the eye. Once the union understood that, they were comfortable with the technology."

Based upon its success, ConEdison is introducing the iris readers at additional doors as workers become accustomed to interacting with the system. When used to secure interior entryways, PI's Iris-on-the-Move is paired with access cards for a dual-factor authentication process that automatically unlocks associated doors. Unlike the lobby entrances, no guard is involved in granting access.

EASE OF INTEGRATION

PI's solution is part of ConEdison's multi-layered approach to control and manage physical access. Systems integrator ADT Commercial installed the PI system, which integrates seamlessly with the sites' access control solution.

Video cameras positioned at key doorways and equipped with built-in video analytics detect "piggybacking" – events in which more than one person enters from a single "swipe." When that occurs, a guard receives immediate notification so that they



can watch the corresponding video – either recorded or in real time – and follow up as necessary.

Installation of the PI system was straightforward. “As with any project, there are always small hiccups, but the team at Princeton Identity is highly responsive and makes sure that the solution delivers as promised. The support team we’ve dealt with while bringing this online has been great. I give them, and the technology itself, a “10 out of 10,” says Gross.

A SEAMLESS EXPERIENCE

The PI system can recognize users by their iris, face, or both, making for some interesting applications in ConEdison buildings that do not require CIP compliance. Because the same reader can identify users based on two separate modalities, iris and face, access that requires dual authentication can occur without the need for cards or PINs. The result would be a seamless experience for workers, who could just glance at a reader to unlock a controlled door.

PI’s solution can support multiple sites with a single database. Workers enrolled at one facility would be free to enter and move about other ConEdison buildings as needed, within the limits of their access control permissions. Just as with current access cards, a single enrollment would be sufficient for companywide use with individualized credentials.

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“The future of security is touchless,” says Gross. “With PI’s Iris-on-the Move, it’s also convenient for users, easy for busy people like me to manage, and an excellent option for properties that must meet rigorous CIP standards for multi-factor authentication.”

