

Juvenile hall stays safe and sound with 9170+

Product:

Eaton® 9170+ UPS

Location:

Eureka, Calif.

Market Served:

Local government

"It does everything we ask of it and more. Since we've had it, it's become an integral part of our security system."

- Tim Toste, detention services director

Background

Humboldt County Probation Department is tasked with reducing the impact of crime in the community through investigation, prevention, supervision, collaboration, detention and victim restitution.

As part of that commitment, the department operates two juvenile facilities: a traditional, 26-bed juvenile hall, as well as the Northern California Regional Facility New Horizons Program, an intensive in-custody mental health treatment program featuring a full-time mental health staff—the only one of its kind in the entire state. Treatment services at the regionally based, 18-bed locked treatment facility include a combination of medication support, individual and family counseling, alcohol/drug assessment, and skill

development training focused on anger management, moral judgment, correcting thinking errors, social skills and victim awareness. Aggression Replacement Training (ART) is an evidenced-based practice (EBP) curriculum used to deliver services.

Challenge

In early 2000, Humboldt County Probation Department initiated an extensive upgrade to its juvenile hall security system, in which analogue switching control devices, monitors, intercoms and locking devices replaced the center's more antiquated equipment.

"Prior to that, we had key pads on each side of exit/entry doors and individual number codes issued to staff," recalls Detention Services Director Tim Toste. "You never really knew how protected those codes were and there was a key pad inside the secure portion of the facility where minors could push the buttons."

With the implementation of the more modern system, the probation department recognized the need for an additional type of security: an uninterruptible power system (UPS) that would safeguard its new equipment against the area's frequent power problems.

"We needed a UPS to protect our entire security system," explains Toste. "It originates from a touch screen, and monitors all intercom systems, cameras, doors, and vehicle sally ports in and out of the facility."

Due to the critical nature of the environment, the probation department sought a solution capable of delivering exceptional availability and reliability. At the same time, it needed a UPS that could fit into the cramped quarters of the juvenile hall's control room. And, though the department didn't realize it at the time, a scalable solution with the ability to adapt to changing equipment needs would ultimately prove to be extremely valuable.

Solution

Based on its power protection requirements, it didn't take long for Humboldt County Probation Department to lock in to the Eaton 9170+ UPS. "It does everything we ask of it and more," reports Toste. "Since we've had it, it's become an integral part of our security system."



Powering Business Worldwide

An ideal solution for applications seeking unparalleled reliability, the 9170+ delivers the highest level of power protection available by eliminating single point-of-failure with N+X power and logic redundancy. Even more, because the 9170+ houses both the logic and power within its modules and not within the enclosure, redundancy is facilitated for the entire UPS.

At the same time, the online design of the UPS completely isolates connected equipment from all incoming power problems, while a high wattage output powers more of today's modern power supplies. This optimum level of protection is especially critical to the probation department, considering the area's susceptibility to power issues—the majority of which tend to be weather-related.

"Living on the north coast, our weather can be kind of harsh in the wintertime," Toste explains. "It's not uncommon for us to lose power for several hours or a half day or so. We also get quite a few power surges."

Without a reliable UPS standing guard, a loss of power could be very detrimental to the juvenile facility. "We have recreation in the evening when it's dark," Toste explains. "When the power goes out and you have 20 or 25 kids out in the recreation area, it gets kind of dangerous. The UPS keeps our security systems online, and keeps the lights on so we can move kids throughout facility and continue to operate, including taking them in and out of custody."

Toste is quick to point out that weather isn't always the culprit behind a glitch in power. "Just a couple months ago, someone lost a couple of Mylar balloons and they blew into the nearby power lines," he recalls. "The power went out here for about two hours. So it clearly can happen anytime, even in the best of circumstances."

When an incident such as that results in an extended blackout, the juvenile facility relies on a backup generator, with which the 9170+ is compatible. "Even though we have a generator, it can sometimes take a few seconds to turn over, so the UPS will fill that void and monitor the power too, to make sure it's good power," Toste says.

The department is also enjoying long battery life in the unit, thanks to Eaton's exclusive ABM® technology, which significantly increases battery service life compared to conventional trickle-charging. ABM uses an innovative, three-stage charging technique that offers prolonged rest periods between charge phases, as well as temperature-compensated charging to optimize recharge time.

"It's exceeded its capabilities, because I was not initially aware of the useful life of the battery or power modules," Toste points out. "I wasn't really aware of the need for maintenance on the unit, and we ended up going a few years past where the batteries should have been swapped out."

The probation department is not only preparing to engage in a preventive maintenance plan with Eaton, but also recently extended the 9170+'s runtime capabilities by purchasing six battery modules. "We can get six hours or more of backup time on the UPS if the generator fails," notes Toste.

Indeed, the scaleable, modular design of the 9170+ is one of the UPS's most desirable features—and one the probation department didn't fully recognize until recently. The unit's plug-and-play 3 kVA battery and UPS modules allow customers to build a solution to match existing specifications, while still allowing for future growth. Having started with a 6 kVA unit, Humboldt County has the option of easily expanding power, redundancy and runtime as needed.

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"That was a pleasant surprise," Toste acknowledges. "Right now, we're looking at a larger project to upgrade the security systems (at the New Horizons facility) and also tie in the UPS as a backup to those systems, as well. It's great that we have the ability to do that."

The probation department also benefited from the 9170+'s sleek tower design, which occupies minimal floor space within the facility's control room. "The space that we have it in is a small file room right off of our control room for the juvenile hall," Toste explains. "Because we have very little room, the fact that the unit is tall and slender was very helpful."

Implementation

Easy serviceability is another benefit of the 9170+, which features universal components that easily fit into any slot without affecting the operation of the system or the protection of the critical load. In addition to being simple to install and configure, the 9170+'s ongoing performance and serviceability are enhanced with hot-swappable power and battery modules that weigh less than 30 pounds each.

Toste also values the unit's user-friendly options, including an easy-to-read front-panel LCD display. "Once I became familiar with the menus and how to scroll through them, I could quickly see if we were on battery power," he says. "You can scroll through the menu and find out how much battery time you have left, or if you need to switch it off."

It was during a recent service call that an Eaton factory-trained field service technician walked Toste through many of the UPS's features. "He taught me quite a bit more about its capabilities and the value of a maintenance contract," he says. "It's really hard out here to find people who know enough about specific equipment such as the UPS. I don't think the value of a maintenance contract can be overstated," Toste emphasizes.

"There's a lot of value in having the proper people looking at the UPS so it works correctly when you need it to. The people I've talked to at Eaton when I've needed to troubleshoot something have been very helpful."

Results

With the 9170+ keeping its security system safe and sound, Humboldt County Probation Department has been able to lock out power problems for good. The UPS gives the department the ability to:

- Provide continuous uptime for its critical 9-1-1 support systems
- Expand capacity and runtime requirements through plug-and-play scalability
- Ensure critical equipment remains completely isolated from all power anomalies
- Preserve valuable floor space in the control room with the 9170+'s sleek tower design
- Preserve the ongoing health of the UPS with a preventive maintenance service contract through Eaton



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