



EcoStruxure IT Expert + APC E-Rate-eligible products

Simplified, centralized UPS lifecycle management for Howard County Public School

Today's K–12 students, teachers, and administrators rely on seamless connectivity to keep IT systems and devices online for continuous learning. Yet many school districts face these common IT challenges: tight budgets, limited resources, and lean IT teams. These challenges can make it difficult to efficiently and proactively manage IT operations.

Seamless connectivity also requires continuous power. Power issues remain the most serious and severe cause of data center outages, according to a recent Uptime Institute report.¹ The reasons vary, but having reliable backup power helps to mitigate power disruptions, regardless of their cause.



Customer challenges

The Howard County Public School System (HCPSS) in Maryland faced this very situation. HCPSS is home to approximately 60,000 K–12 students and 9,000 teachers, administrators, and staff.



The HCPSS network—including a fleet of 578 uninterruptible power supply (UPS) units—spans 82 sites and is managed by a small team of three network specialists. As some of the UPS units were aging, they could not be consistently relied upon to provide backup power.

Prior to 2024, the HCPSS network team had to take a reactive approach to maintaining its UPS fleet due to limited resources. They used several third-party tools to glean limited insight into their UPS systems and then had to integrate and manually verify that data.

The result? Manual processes, limited insights, and a small team meant that these aging UPS units could fail at any moment, putting the district at risk for downtime.

These failures would then require multiple technical support calls to troubleshoot, replace batteries, or replace the UPS altogether. In 2024 alone, the HCPSS team made 78 support calls and spent 20 hours dealing with battery replacements. In other words, they spent more time reacting to issues and had less time for proactive UPS management.

¹ "Annual Outage Analysis 2025: Executive Summary," Uptime Institute, 05/2025.



Solution

HCPSS engaged [Data Networks](#)—a Schneider Electric partner—to refresh a portion of its network every year. Because power is considered critical infrastructure, the district not only chose to put its 578 UPS units on annual refresh cycle, but it also decided to adopt E-Rate-eligible APC Smart-UPS™ products to simplify manageability.

Schneider Electric engineers started with a Power Infrastructure Assessment and applied the cloud-based EcoStruxure™ IT Expert software to the HCPSS UPS environment. EcoStruxure IT Expert enables secure monitoring and visibility into the IT physical infrastructure. The dashboard provides a single view to proactively monitor and manage IT equipment from anywhere.

The software also enabled engineers to benchmark the HCPSS UPS fleet against other customer fleets in the Schneider Electric data lake to show how its UPS systems stack up under similar conditions. By combining this data with the ages of each of the district's UPS units, HCPSS was able to identify the 60 most critical units for replacement in year one. Data Networks, as the awarded contractor for the district's E-Rate Form 470, successfully partnered with Schneider Electric to deliver and install the 60 E-Rate-eligible APC Smart-UPS systems for HCPSS.

With the new lifecycle management plan, HCPSS can proactively replace approximately 50–60 UPS units each year, avoiding the downtime that comes with unplanned UPS failure and enabling better budget predictability.

Summary

A large K–12 school district with 82 sites and 578 UPS units overcame its resource gaps and multiple third-party point tools to clear the way for full visibility into its UPS environment.

Using EcoStruxure IT Expert, the team can now monitor and manage the entire fleet and identify vulnerable UPS units. They can then replace batteries or the UPS itself, in a cost-effective way, and avoid downtime associated with unplanned failures.

As a result, the district will achieve one of its key initiatives by adopting APC Smart-UPS systems across all sites and tying everything into EcoStruxure IT Expert.

Results

The biggest difference between manually managing 578 UPS units and using EcoStruxure IT Expert to manage them? Today, HCPSS is much more proactive. The team can see battery health, load levels, and environmental data—all in real time—and take appropriate action before UPS failure.

In fact, by analyzing load data from EcoStruxure IT Expert, HCPSS was able to reduce the number of UPS units in each network closet and determine if any external batteries were needed to meet runtime requirements.

The result? EcoStruxure IT Expert enabled HCPSS to proactively plan and budget for annual UPS replacements—saving time and effort by eliminating manual monitoring, reducing costly downtime, and allowing schools to focus on what matters most—ensuring learning never stops.



Reduce potential for significant power outages



Prioritize vulnerable UPS systems for service or replacement



Save time with proactive resolutions, not reactive



Enjoy greater budget predictability and take advantage of E-Rate funding

Summary

- **Solution:** EcoStruxure IT Expert
- **Total Sites:** 82
- **Total UPS fleet:** 578

Key challenges

- Multiple third-party tools added management complexity
- No centralized visibility to head off potential outages and downtime
- Manual checks and processes leading to potential error
- Valuable time and resources lost to troubleshooting and tech support



Solution

EcoStruxure IT Expert allows you to gain more than alarms with full visibility, predictive management, and data-driven recommendations to mitigate security and failure risks across your local edge, distributed IT, and data center.



Benefits of EcoStruxure IT Expert

- Advanced, centralized monitoring for anytime, anywhere visibility into critical power, cooling, and environmental equipment—regardless of vendor.
- Data-driven insights to quickly identify failing or vulnerable devices—and provide recommended actions for resolution, before issues arise.
- Remote asset management that reduces unnecessary trips to distributed edge sites for asset configurations and firmware updates.
- Room and rack modeling for physical asset and space control with thousands of third-party devices to add to your designs.



Schneider Electric teams are great partners through the whole process. They're super responsive and willing to walk us through best practices. It felt like a true collaboration, not just a product deployment.

— Chris J. White, Network & Server Support Specialist/HCPSS



With very small IT teams in districts like Howard County, where one person manages many sites, Schneider Electric's EcoStruxure IT Expert provides single-pane-of-glass visibility so HCPSS can proactively look at UPS health and determine if batteries need to be replaced or if there's an issue.

— Amy Bateman, Account Executive/Data Networks



datanetworks

To see how EcoStruxure IT Expert can work in your environment, sign up for your own free [Power Infrastructure Assessment](#).

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