CITY HALL

Eaton helps bring clarity to City's power environment

Location:
Roswell, Ga.

Segment:
Government

Problem:
In addition to suffering frequent UPS and battery failures, the City had no way to view or manage power across its IT landscape.

Solution:
Eaton Visual Power Manager (VPM), BladeUPS, 9PX, 5PX, Eaton UPS Services

"With VPM, I am now able to see and control our entire power environment, I can watch the power cycle and if there's an issue, see where it's coming from and remedy it as needed."

Maurice Pryce, IT director

Background

A suburb of Atlanta, the City of Roswell is home to approximately 95,000 residents, making it the state's eighth-largest city. Operating with a mayor/council form of government, Roswell's services are executed through eight departments: Administration, Community Development, Environmental/Public Works, Finance, Fire, Police, Recreation and Parks, and Transportation. Within these departments, more than 40 divisions and offices employ 600 full-time and 300 part-time employees.

Challenge

Power quality tends to be a routine problem throughout Roswell, in large part due to frequent thunderstorms. "The lightning here is brutal," confirms IT Director Maurice Pryce, noting that in the past, the force of nature posed a persistent threat to the City's ability to maintain continuous uptime within its data center, police department and numerous outlying sites.

A robust power protection solution was needed to safeguard the City of Roswell's extensive range of equipment, which includes mission-critical servers, network fiber switches,

routers, modems and dozens of PoE switches responsible for keeping traffic cameras, security alarms, parking gates and other devices up and running. Yet the City's existing fleet of uninterruptible power systems (UPSs) was not supplying the required level of reliability.

"We were having power problems across the city," Pryce recalls. "Some of the UPSs weren't working. We had batteries dying. We had no visualization of the status of the batteries or the power cycling capability. We were looking for something to help us manage our power," he continues. "We also wanted a solution that would clean up and stabilize the power, and provide uptime between an outage and our generator kicking on."

Among the IT director's primary concerns was the fact that every time a power cut occurred, he was forced to send IT personnel into the field to manually reboot VoIP systems at outlying sites. Driven by these challenges, Pryce made a push for the City to undergo a complete UPS refresh during a fiber switch replacement project two years ago.

While the City of Roswell struggled with ongoing UPS performance issues from its

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hodgepodge of manufacturers, Pryce notes that the older Eaton unit deployed within its data center delivered exceptional reliability.
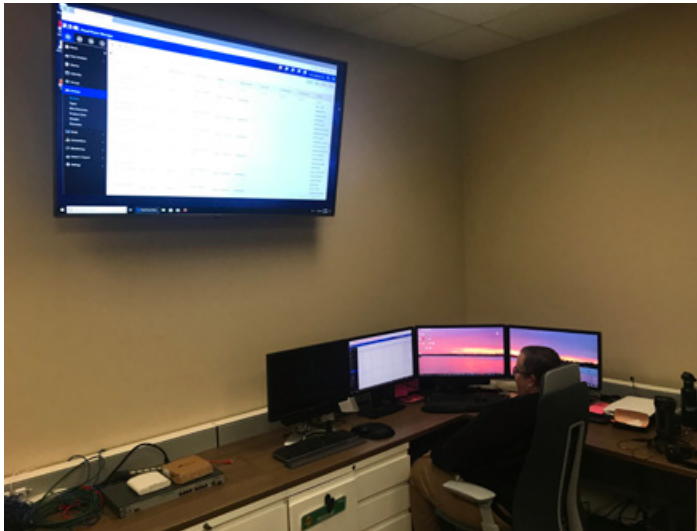
"We have worked well with the City of Roswell in the past," explains Lee Owens of DealFlow Networks, a solutions integrator that has worked with the City on numerous projects over the years. "Eaton had protected a lot of their core infrastructure in the past, and the manufacturer had won their trust."

Solution

With the help of Owens and engineers from Eaton, the City of Roswell mapped out a comprehensive power protection solution. Over a two-week period in 2019, nearly 50 new UPSs were deployed, including an Eaton BladeUPS within the main data center at City Hall. Selecting the model for its expandability, modularity and small footprint, the City has been thrilled with the system, which is designed for high density computing environments and dissipates one-third of the heat of traditional modular UPSs.

For the data center within its police station, the City chose the Eaton 9PX, an ENERGY STAR® qualified unit that delivers premium backup power and scalable battery runtimes in both rack-mount and stand-alone installations. "We really liked that the 9PX was an online double-conversion unit, which provides a higher level of protection for the networking infrastructure at our more critical locations," says Pryce.

In addition, dozens of smaller Eaton 5PX and 9PX UPSs were installed in equipment closets throughout various administration buildings, fire stations, police facilities and other sites. The units primarily protect PoE switches on a broad range of devices such as traffic cameras, where the City's ability to view accidents helps ensure prompt 911 response. "It's absolutely critical to have these cameras stay up and running," Pryce emphasizes.

future upgrades ahead of the software's release. "Eaton's software component put us over the top and knocked out the competition," Caldwell reveals.
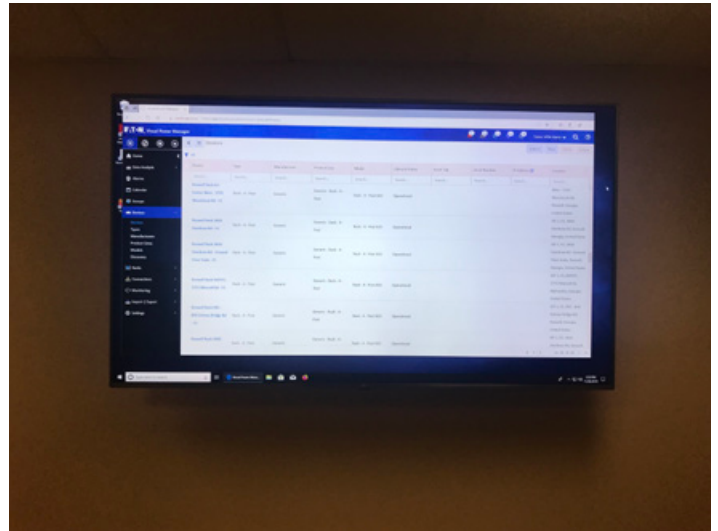
In fact, VPM's improved graphical user interface (GUI) was imperative to the City of Roswell, which monitors all activity across giant screens in its IT room. "The visual aspect is especially important," explains Pryce, "because if it doesn't look right, it's hard for us to see what's occurring. We really like having one pane of glass from which we can control all the devices and UPSs."

Pryce also appreciates VPM's user-friendly setup, which streamlines deployment by auto-discovering UPSs and PDUs, as well as initiating mass firmware and configuration commands. The vendor-agnostic solution also simplifies day-to-day monitoring with time-saving features that enable IT personnel to perform quick status checks, view trends from an easy-to-access dashboard, identify equipment health status within a visual layout of the data center, and supply predefined and custom reports, both scheduled and on-demand.

With robust capabilities and real-time monitoring to ensure continuous power to critical equipment, VPM is also instrumental in helping organizations like the City of Roswell maintain business continuity. For instance, the solution averts crashes from UPS and PDU overloads, provides failover and capacity simulation, and enables control of PDU outlets and UPS load segments. Furthermore, up-to-the-minute statistics and reporting provide a quick way to identify potential issues, allowing time for personnel to react and take corrective action.

"With VPM, I am now able to see and control our entire power environment," Pryce reveals. "I can watch the power cycle and if there's an issue, see where it's coming from and remedy it as needed."

In addition to bolstering awareness across the City of Roswell's power environment, VPM provides the ability to create custom reports, track trends and create customer billing/chargeback reports. The solution has also cured one of the City's primary pain points.

The highlight of the project was Eaton's Visual Power Manager (VPM) software, which provides the City's IT team with the tools they need to monitor all power devices. Easy-to-deploy, VPM simplifies day-to-day monitoring and helps maintain business continuity. In addition, the City can obtain predefined custom reports, initiate mass firmware and configuration commands, and gain a visual layout of its data centers — making it easy to stay in-tune with trends as well as identify and resolve any issues.

"Right after VPM was installed, the City was already getting reports on where the new UPSs were covering short outages and other problems that they never even knew were there," reveals Jason Caldwell, Eaton's field applications engineer. Equally instrumentally in the project was Eaton's Partner Development Manager Greg Cullum, who manages the relationship with DealFlow Networks.

In addition to assisting with UPS sizing on the project, Caldwell and Cullum provided a demo of VPM, even sharing a sneak peak of

"Before, whenever we had a power outage, our IT guys had to manually reboot our VoIP systems in outlying sites," Pryce explains. "Now they can do so remotely, which is a huge time savings."

Equally important, VPM has helped the City identify power spikes it was unaware of. "We have been able to pinpoint and uncover issues we didn't even know we were having," says Pryce. "Now we can see our power source, how many failures there are, where our vulnerable spots are. By detecting the issues, it has helped us to identify locations where we might need extra support from a lightning rod or surge suppressor."

While the solution has already demonstrated clear value, the City of Roswell has plans to further utilize VPM's tools. For instance, Pryce plans to use system metrics to create monthly battery reports that will determine when replacement is needed, which in turn will enable him to incorporate the cost into his budget.

In addition to the value and reliability of the complete line of Eaton products, the IT director also offers high praise to the teams from both Eaton and DealFlow Networks. "Working with Lee, Greg and Jason was great," Pryce enthuses. "They came on site and really helped us out a lot. And they saw the project all the way through completion."

Thanks to its new power protection solution, the City of Roswell no longer has to fear Mother Nature. "The UPSs have been great," Pryce reports. "They are extremely solid. None of our equipment has lost power, even when the utility has experienced outages."

The City gains further peace of mind knowing all of its UPSs are protected by a 5-year Eaton service plan

Results

With the Eaton solution in place, the City of Roswell can now focus on its core responsibilities and competencies, rather than lose valuable time worrying about power quality or downtime threats. Thanks to the UPSs and VPM, the City is able to:

- **Ensure continuous uptime** while safeguarding critical equipment against lightning strikes and dirty power
- **View and manage** its entire power environment with VPM
- **Remotely reboot devices** at outlying sites
- **Detect potential vulnerabilities** and proactively remedy them — before they become issues

To learn more, visit **Eaton.com/VPM**

Note: Features and specifications listed in this document are subject to change without notice and represent the maximum capabilities of the software and products with all options installed. Although every attempt has been made to ensure the accuracy of information contained within, Eaton makes no representation about the completeness, correctness or accuracy and assumes no responsibility for any errors or omissions. Features and functionality may vary depending on selected options.

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