

MIAMI-DADE COUNTY PUBLIC SCHOOLS AN EDUCATION IN SAVING MONEY WITH BIGFIX POWER MANAGEMENT



Customer

Miami-Dade County Public Schools, <http://www.dadeschools.net/>

Vertical Industry

Education

Challenges

- Reduce electricity bills for the USA's 4th largest public school district
- Implement a PC power conservation program with flexibility to accommodate a diverse set of needs, hours and end-user requirements
- Maximize conservation without impeding systems maintenance

Solution

BigFix Power Management implemented throughout the Miami-Dade County Public Schools saves money, reduces carbon emissions and offers the flexibility required for such a diverse computing environment.

Results

- Over \$4.2M in total savings from reduced energy costs, with documented savings of \$100,000 per week
- Per-user group-based policy settings to ensure maximum energy conservation with no impact to end-user productivity
- Integrated systems and power management with distributed Wake-on-LAN functionality overcomes systems maintenance obstacles

“Since we already had BigFix running on these machines, installation was quick and easy. It took just a couple of days and we did it centrally, sending out the Power Management module over our network for automated installation on distributed PCs.”

–Tom Sims

Director of Network Systems
Miami-Dade County Public Schools

Customer

With 345,000 pupils, 22,000 teachers and over 400 schools and administrative sites, Miami-Dade County Public Schools (M-DCPS) rates as the 4th largest school system in the country. The IT infrastructure is commensurately complex, with over 100k computers supporting classroom instruction and administration. The electric power needed to run these computers costs the district several million dollars per year. Further up the chain, generating this electricity consumes fossil fuels which, in turn, add to the already high volume of CO₂ in the earth’s atmosphere.

Challenges

Finding creative ways to save taxpayers money is consistently a top priority for any public school system. In fact, doing more with less has always been the mantra for M-DCPS’ Information Technology Services (ITS) staff. Conserving the energy used by school computers and monitors seemed an obvious method for saving money. But with such a diverse set of usage requirements, the team needed a conservation program flexible enough to accommodate their diverse user community. Additionally, it was crucial that computers have remote turn-on ability for pushing out critical patches, software updates, and changing security configurations.

Solution Overview

Since Miami-Dade County Public Schools was already using BigFix Endpoint Protection on the 100,000 computers throughout their network, turning on the Power Management function was a smooth transition. With no additional hardware or software necessary for deployment, the evaluation process was very straightforward.

Based on the proof-of-concept and the BigFix Power Management tracking system, initial estimates suggested an annual savings of \$2.1 million. However, after a year of full deployment across the infrastructure, the savings totaled \$4.2 million. This has inspired additional energy conservation programs. “These savings are impressive,” comments Tom Sims, “but they are just the beginning. We realized [that] when we turn off computers in a school, we can also turn off the air conditioning and save even more money. Our facilities group manages the climate controls, but it was easy to convince them that we could work together to coordinate a computer and HVAC electricity conservation program.”

BigFix Deployment Details

Flexibility was a critical requirement for the school system. The solution deployment would need to support various schedules based on student curricula, faculty programs and administrative initiatives. The BigFix policy-based approach to power profiles accommodated the evening adult classes, as well as research labs that required all-night power. As Sims explains, “BigFix gives us the ability to custom tailor power management schedules to meet varying requirements. In fact, we even wrote a special ‘don’t turn me off’ policy for computers that need to run 24 hours a day.”

Thanks to this policy-based approach, 97% of the BigFix-managed computers are turned off when not in use. Distributed Wake-on-LAN functionality enables ITS staff to remotely turn on machines for systems maintenance, so that energy conservation doesn’t impede systems health and maintenance.

Why BigFix?

A number of factors initially brought M-DCPS to BigFix in 2004. Straightforward installation, ease-of-use, and flexible policy settings aligned with their existing energy conservation priorities. Having a single management console view to set endpoint security settings, as well as power profiles made for pain-free administration. Finally, it was essential to have a security and systems management platform that could scale to over 100,000 endpoints without breaking the school system’s budget. It was clear early on that BigFix’s single-server, single-agent architecture was a natural fit for their environment.

Looking Ahead

The Miami-Dade County Public Schools IT staff expects to continually find new uses for BigFix technology. The open nature of the BigFix platform allows the ITS team to solve a host of IT operational problems that they may not even foresee in the short-term. In the meantime, more computers are enrolling in the energy conservation program every day, promising even more savings.



BigFix: Breakthrough Technology, Revolutionary Economics

Founded in 1997, BigFix, an IBM Company, is a leading provider of high-performance enterprise systems and security management solutions that revolutionizes the way IT organizations manage and secure their computing infrastructures. Based on a unique architecture that distributes management intelligence directly to the computing devices themselves, BigFix is radically faster, scalable, more accurate and adaptive than legacy management software. From Systems Lifecycle Management, Security & Vulnerability Management to Endpoint Protection, BigFix solutions automate the most labor-intensive IT tasks across the most complex global networks saving organizations significant amounts of time, labor, and expense. BigFix provides real-time visibility and control for millions of globally distributed computing devices. The BigFix customer list counts many of the world's largest and most prestigious organizations in every industry including financial services, retail, education, manufacturing, and public sector agencies. More information can be found at www.bigfix.com.

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