

MIAMI DADE COUNTY SCHOOLS: BIGFIX POWER MANAGEMENT LOWERS POWER BILLS AND SHRINKS CARBON FOOTPRINT



CASE STUDY

AT A GLANCE

Miami Dade County Schools installs BigFix Power Management on 80,000 PCs and discovers that computer-related cost savings may be just the beginning.



www2.dadeschools.net/

KEY CHALLENGES

- Reduce electric bills at the USA's fourth largest public school district
- Implement a power conservation program for the school district's PCs with sufficient flexibility to accommodate differing opening hours and "corner case" requirements
- Shut down computers without reducing windows for necessary maintenance

IMPLEMENTATION HIGHLIGHTS

- BigFix Power Management installed on 80,000 PCs at 370 locations in the school district
- PCs subject to Power Management controls now operate an average of 10.3 hours a day, down from 20.75 hours per day
- Installation followed a proof-of-concept trial at five schools, from which the BigFix-Miami Dade team estimated power savings, electricity cost reductions, and carbon emissions reductions
- Miami Dade IT achieves additional savings by coordinating computer down time with air conditioning shut downs



“BigFix Power Management has been easy to install, easy to operate, and very flexible. It’s currently working exactly as we expected from the proof-of-concept.”

Tom Sims,
Director of Network Systems,
Miami-Dade County Public Schools

RESULTS

- Based on proof-of-concept findings, Miami Dade projects \$2.1 million in annual electricity cost reductions on 80,000 PCs
- This also translated to 34.3 million pounds of CO₂ reductions
- Miami Dade program managers believe that follow-on air conditioning reduction savings could exceed direct savings from PC power conservation

With 345,000 pupils, 22,000 teachers and over 400 schools and administrative sites, the Miami Dade County Public Schools rates as the fourth largest school system in the United States. The school system's IT infrastructure is equally impressive, with over 100,000 computers supporting classroom instruction and administration.

The electric power required 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 volume of carbon released into Earth's atmosphere.

Adding Power Management to an Existing BigFix Solution

Miami Dade Schools has been a BigFix customer since 2004, relying on the technology to maintain and block spyware on the organization's 100,000-computer infrastructure. In the Spring of 2007, BigFix briefed Miami Dade Schools Information Technology Services (ITS) on a new product, BigFix Power Management. The

FLEXIBLE POWER CONSERVATION SETTINGS MEET SPECIFIC NEEDS

new solution from BigFix enables administrators to centrally set and implement power conservation programs on enterprise-scale IT infrastructures. Typically, this means that organizations can use BigFix to remotely shut down computers, or some of their subsystems, during non-business hours. This directly reduces power consumption, electric utility costs, and, more indirectly, damage to the environment.

Tom Sims, Miami Dade Schools Director of Network Systems, says: "We had been using BigFix for several years for security and system management purposes. Power management looked like a neat way to apply their technology, especially since the monetary and environmental benefits seemed to be direct. We then arranged to try out BigFix Power Management in a proof-of-concept at five schools."

Cost Savings and Environmental Benefits

Data from the proof-of-concept projected significant savings to the schools if they installed it throughout their infrastructure. By installing BigFix Power Management on an initial set of 80,000 PCs, the schools would reduce their electric bill by \$2.1 million per year and cut power generation-related carbon emissions by 34.3 million pounds.

"These savings are impressive, but they are just the beginning. We realized 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 computer and HVAC electricity conservation programs."

Miami Dade Schools purchased a production license for BigFix Power Management in July 2007 and installed it on 80,000 computers at 370 sites in the schools system in October. Sims says, "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."

Conservation Policy Flexibility

BigFix Power Management offers wide flexibility in setting power conservation policies. This became important at Miami Dade Schools when Sims and his team recognized that there would be no one size fits all approach to power management. "Schools operate at different schedules. Primary schools have different hours than high schools and some schools hold adult classes at night. Also, some computers can never be turned off as they are

working all night long on number crunching projects. 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' file for computers that need to run 24 hours a day."

Overall, those computers running BigFix Power Management run an average of 10.3 hours a day compared to 20.75 hours per day previously. Even with exceptions, 97 percent of the computers running BigFix Power Management are turned off when not in use.

Distributed wake-on-LAN features in BigFix Power Management have also proven useful to Miami Dade Schools. Sims comments: "We can wake up computers to service them even when BigFix Power Management turns them off. Not only can we synchronize system maintenance with power conservation, but we realized that the need to maintain computers was one of the reasons we left them on in the first place."

Summing Up

Looking ahead, Miami Dade Schools indicates it would like to install BigFix Power Management on all of the computers in its infrastructure. Sims says, "BigFix Power Management has been easy to install, easy to operate, and very flexible. It's currently working exactly as we expected from the proof-of-concept. We're looking forward to getting it on more machines, particularly those used by the school system's administration."



BigFix: Breakthrough Technology, Revolutionary Economics

BigFix, Inc. offers the IT industry's only intelligent IT policy enforcement engine that enables real-time visibility and control of globally distributed desktop, mobile and server computer infrastructures. Built on a revolutionary technology platform, BigFix continually assesses and manages the health and security of enterprise computing devices at the velocity of change.

Without requiring massive investment in dedicated management resources, BigFix automates enterprise-scale malware defense, asset management, software inventory and distribution, vulnerability assessment, policy enforcement, power conservation, and patch management, without compromising network performance, end-user productivity, or security.

BigFix delivers outstanding return-on-investment through slashing IT infrastructure costs of ownership and management complexity while enabling IT organizations to elevate security configuration management from chronic pain point to positive business value resource.