

HARNESSING THE POWER OF CHANGE ACROSS ONE COMMUNITY

Boulder Valley Schools District to save \$300,000 and 3,670 tons of carbon dioxide every year with Verismic Power Manager

Background

Boulder Valley Schools District (BVSD) is part of a very environmentally conscious community. Boulder prides itself on being a US leader in sustainability and the city has clear environmental goals. These goals include offering residents and businesses a reliable and affordable power supply, ensuring a clear path toward a clean energy future by reducing greenhouse-gas emissions, and offsetting the city's carbon footprint. As an active community hub, the Schools District was keen to take a role in making this happen.

Responsible for 57 facilities accounting for approximately 3.3 million square feet of operation, BVSD serves the communities of Boulder, Louisville, Lafayette, Erie, Superior, Broomfield, Nederland, Ward, Jamestown and Gold Hill, which covers approximately 500 square miles with an enrollment of over 27,000 students and 4,000 staff members using over 10,000 computers.

The district identified an opportunity to cut costs and reduce energy emissions by actively managing the power used by their 10,000 PC estate. In 2009 BVSD had created a Sustainability Management System (SMS). The SMS established a vision of sustainability for the district, and outlined goals and strategies for achieving the vision. One of the strategies for reducing energy recommended in the SMS was to purchase and implement Power Management Software and to educate users about the benefits of powering down computers.

The IT Department and the Office of Sustainability selected Verismic Power Manager after a detailed assessment of several potential solutions across several hundred PCs acting as a live cross-section of the environment. The team also undertook energy audits of the district's schools, and took consultancy regarding the potential energy and dollar savings available through powering computers down when not in use.

Andrew Moore, the CIO of BVSD, explains the need for change:

"Our community is very green oriented and felt that too many resources were being wasted by idle computers using too much energy. Previously, district computers were left on in full-power mode 24 hours a day, seven days a week. We were doing software upgrades overnight due to slow fiber networks and were consuming far more power than we needed to. When these networks were upgraded, IT realized we could look for a solution that allowed us to 'power down' terminals when they weren't being used regardless of whether it was in school hours or not, and 'wake them up' at any time to perform maintenance."



The solution

Verismic Power Manager was initially deployed across 7,600 PCs at BVSD, installing the software onsite using virtual server technology. Over the next 12 months, the BVSD IT team rolled the solution out to a further 2,400 machines over several sites, bringing together the benefits of the power management technology and the dashboard overview of energy usage to demonstrate opportunities for further savings. The IT team is now able to control power settings on thousands of computers via a single interface.

Describing how Power Manager has been configured, Andrew Moore explains:

“Within BVSD we decided to switch inactive computers to a low-energy mode after two hours of not being used during school hours and after 30 minutes during off-hours. The technology gives us the ability to analyze computer usage in each District building and customize the power down timing depending on requirements. For example, devices in a library with later opening hours can be managed differently to those in a classroom.”

Benefits

By making these changes with Verismic Power Manager, Boulder Valley Schools District expects to make a cost saving of \$300,000 and reduce carbon dioxide entering the atmosphere by 3,670 tons every year.

Andrew Moore continues:

“Being able to easily manage PC power in a large environment is critical. The savings produced in lowered costs, reduced wear and tear on moving system parts, and the community perception of reduced resource consumption are very important. It’s a difficult balancing act to provide the instant access that our users demand while also reducing the unnecessary waste of idle computers, but we feel we have achieved this using Verismic.”

Verismic’s Power Manager has ensured that Boulder Valley School District has been able to show Return On Investment and its commitment to the community’s environmental strategy by demonstrating results incredibly quickly; saved energy and costs started to display on the dashboards within a matter of days. Ghita Carroll, BVSD Sustainability Coordinator, affirmed the benefits:

“The ability to power down unused terminals over multiple locations without being onsite allows for large energy savings, and provides a great example to students and staff of our sustainability standards in action. Perception of our District as an energy conscious community has improved. Implementing this technology was a positive step toward reaching our sustainability goals and has had a very quick payback from permanent, ongoing savings.”