

Immediate, Measurable Results for Meeting Federal Sustainability Mandates

How PC Power Management Can Reduce Energy Consumption by 30 to 60%

This paper is written for federal-agency appointees responsible for sustainability initiatives, as well as IT Professionals and Desktop Administrators. It summarizes elements of Executive Order #13514, issued in October 2009, that relates directly to power-use reduction by IT departments in the context of Federal leadership in environmental, energy, and economic performance. It then describes how deploying a power-management software solution such as Verdiem® SURVEYOR is a low-IT-impact, user-transparent and highly effective strategy that aligns well with the directive's requirements and delivers significant measurable reductions in PC energy costs and associated greenhouse gas emissions. Verdiem is a U.S. company focused on PC power management and Green IT.

Immediate, Measurable Results for Meeting Federal Sustainability Mandates

How PC Power Management Can Reduce Energy Consumption 30 to 60%

A Call for Carbon-Cutting

In October 2009, President Obama issued Executive Order #13514, a broad-based environmental initiative to “establish an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions a priority for Federal agencies.” This includes “scope 2” greenhouse gases, defined as “direct greenhouse gas emissions resulting from the generation of electricity, heat, or steam purchased by a Federal agency.”¹

Among the provisions of the order, each agency is directed to:

- Set an agency-wide target for percentage reduction of greenhouse gases to be achieved by 2020
- Prioritize agency actions based on lifecycle return on investment
- Annually evaluate performance to drive continuous improvement
- Disclose results on a publicly available Federal website
- Achieve the sustainability goals and targets

PC power management is a simple way for agencies and organizations to reduce their energy consumption and realize significant cost savings while demonstrating leadership toward sustainability compliance efforts.

PC power-management software places PCs and monitors into low-power states when idle, via a centrally managed system that is transparent to end users and provides a positive impact on agency IT departments. SURVEYOR from Verdiem is an enterprise class solution with a rich feature set that can benefit any agency or organization regardless of their size or mission:

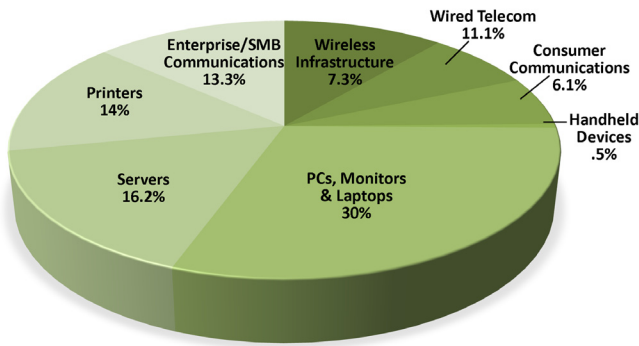
- Reduces PC energy costs by 30 to 60%
- Pays for itself within 6-12 months through energy savings
- Delivers quantifiable and verifiable results for tracking and documenting reduced energy consumption, cost savings, and carbon emissions
- Deploys quickly and provides a positive impact on desktop IT operations

¹ Executive Order, Federal Leadership in Environmental, Energy, and Economic Performance, October 5, 2009

More than 400 government agencies, universities and corporations have deployed over 1 million SURVEYOR seats, saving \$20 to \$60 per PC per year and achieving a 6 to 12 month payback.

Power-Saving Potential on Every Desktop

In an enterprise, energy use and CO₂ emissions from PCs, monitors and laptops is the largest single category of IT energy consumption, almost double that of servers and more than double that of printers.²



These devices present a ripe opportunity for power reduction. A typical PC consumes 535 kWh of electricity a year, and the U.S. Environmental Protection Agency estimates that two-thirds of that is wasted. Studies have shown that:

- Typically, 60 percent of an organization's PCs are left running after business hours³
- 70 percent of end users disable power management settings on their machine⁴

Transitioning a computer to "sleep mode" immediately reduces its active energy use by over 90 percent. Given the tendency of users to override the settings, providing IT with the ability to centrally manage and control this function via a power-management solution like SURVEYOR from Verdiem allows an agency to achieve significant, predictable reductions.

National Institutes of Health (NIH) has deployed SURVEYOR on over 6,000 computers and has saved 1.2 million kWh of electricity and over \$130,000 in costs.

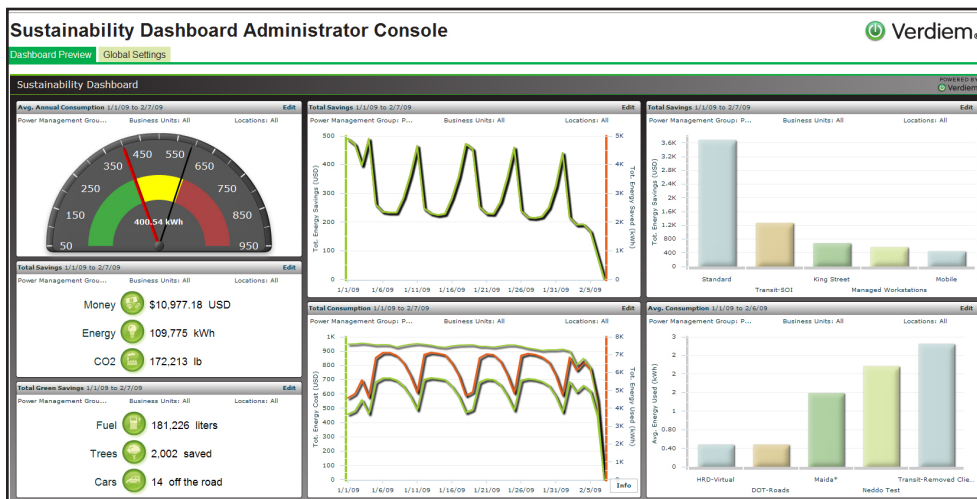
² The Gartner Group, December 2008

³ U.S. Department of Energy: www.energy.gov

⁴ Lawrence Livermore Lab: www.llnl.gov

The Numbers to Prove – and Improve

SURVEYOR implements a solution for successful EO13514 monitoring and reporting. It has a web-based sustainability dashboard for an at-a-glance view of economic and environmental savings in addition to a comprehensive reporting capability. Installing SURVEYOR is a three step process. First, installing a lightweight client agent on PCs and running it passively gathers statistics about actual end user patterns, machine power states and delivers an initial baseline measurement of power consumption and greenhouse emissions. Second, the actual user data that is collected is then used to determine the optimal power policies and settings to provide the best cost and energy savings without impacting end users. Third, administrators then enable policies and enforcement. The dashboard gives immediate feedback about the power reduction, cost savings, and associated carbon reductions achieved over easily configurable time periods. The reports automatically gather the input needed to comply with the Executive Order, both for the annual evaluations and for tracking against the overall target objectives. Many customers post this dashboard on their Intranet, a purpose for which it was specifically designed.



The SURVEYOR Sustainability Dashboard gives a direct readout of energy use and energy reduction, and even directly translates the figures into greenhouse gas equivalents.

Positive Impact on IT Environments

SURVEYOR is an “out of the box” enterprise solution devoted to power management that can be deployed in a matter of hours. Other systems require custom scripts to be created and maintained, or are part of broader-based solutions that are far more complex. Once SURVEYOR is installed, features such as automatic machine grouping, Wake on LAN and intelligent, dynamic policy management eliminate the need for significant ongoing IT administration and management. 77 percent of Verdiem’s IT customers spend five hours or less per month managing and administering SURVEYOR after it is deployed and running. 90 percent spend less than 10 hours per month.

77 percent of Verdiem’s IT customers spend five hours or less per month managing and administering SURVEYOR after it is deployed and running. 90% spend less than 10 hours per month.

Maximum Power Saving, User-by-User

SURVEYOR senses when machines enter periods of non-use by detecting prolonged periods of user inactivity, and transitions them to a low-power state while respecting the need to automatically save and protect open files or applications. Flexible, schedule-based policy controls can be applied to groups of machines or users. Power policies can also be configured to match power savings to specific usage profiles. Verdiem's comprehensive reporting tracks power consumption and savings in real time. This allows agencies to continually refine their policies and optimize their energy and costs savings as the needs of the organization and desktop computing infrastructure changes over time.

Wake-Up Calls for Patching and Updates

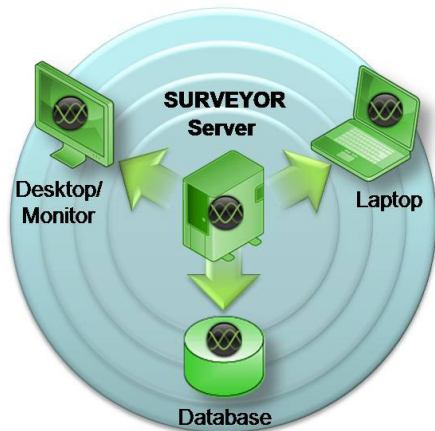
SURVEYOR extends existing client desktop management solutions for applying patches and software updates, by automating the process of waking machines for scheduled maintenance intervals and then powering them down afterwards. It works in concert with any client management suite including; Symantec Altiris, Novell ZENworks, BMC Marimba, HP Client Automation or Microsoft System Center ConfigMgr. An integration module for Microsoft System Center ConfigMgr adds further capabilities that enhance the administration experience. SURVEYOR, in addition to handling scheduled maintenance windows, can wake machines on-demand for unscheduled updates or patches, providing the flexibility to immediately respond to security threats and vulnerabilities. This increases the reliability of patch management and enhances the security of the desktop infrastructure.

Wake-up for Remote User Access

Many agencies and organizations are turning to telecommuting to reduce their energy consumption. This typically requires an employee to leave their computer on all the time to enable remote access. SURVEYOR leverages our patented "Wake on Web" capability, providing a fast and secure way for remote employees to wake their machines remotely and eliminate the waste of energy and money by leaving computers on all the time. Simple, automated browser based "shortcuts" can be created on the end-user machine to easily wake up office PCs making remote access a seamless process.

Centralized Control and Management

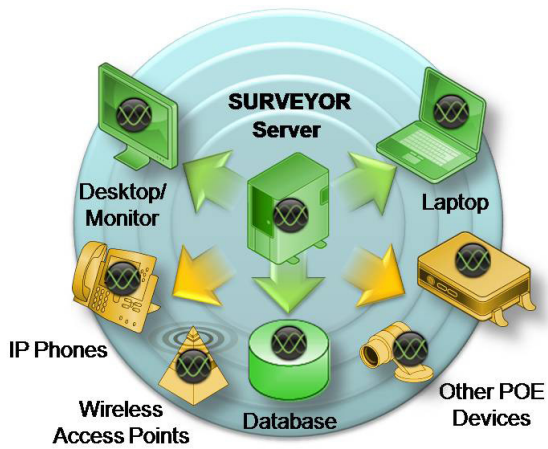
Today, SURVEYOR allows the central administration of power management settings for networked PCs. A lightweight, transparent agent is installed and runs on all Windows PCs and laptops - including Microsoft Windows XP, Vista, and Windows 7. Agents communicate with a central SURVEYOR server running on a Windows Server and all information is stored centrally in a Microsoft SQL database.



Overview of SURVEYOR 5.2 Architecture

A Future Platform for Broader IT Power Management

Just as manufacturers have built energy-saving capabilities into desktop PCs and laptops, manufacturers of other types of networked IT equipment are adding them too, as awareness of power consumption and heating/cooling issues grows. SURVEYOR will soon have the capability to measure, monitor and/or manage a broader range of networked IT devices, including Cisco IP phones, wireless access points, and switches, comprising the most complete platform for managing power-aware devices.



The Clear Choice for IT

Here's why IT departments overwhelmingly choose SURVEYOR:

- Fastest time to deployment and savings — deploys in hours, not days or weeks
- Easiest ongoing IT management — “set and forget” design incorporates automated Wake on LAN, dynamic and intelligent policy management, and remote-user wakeup
- Maximum savings based on actual end-user behavior — not a “lowest-common denominator” or “one size fits all” approach to policy setting
- Achieves nearly 100% IT patch management and desktop updates — works in conjunction with your client/desktop management suite such as Symantec Altiris or Microsoft System Center ConfigMgr and automatically wakes machines for scheduled and on-demand maintenance. The administration experience with Microsoft System Center ConfigMgr (SCCM) and Microsoft System Management Server (SMS) is further enhanced via a power management pack integration module.
- Comprehensive reporting of energy, carbon & cost savings — includes graphical C-level sustainability dashboard and detailed reporting, customizable for different organizations and audiences

How to Learn More

Visit our website for more information. There you can see first-hand how SURVEYOR technology works, schedule a Go-to-Meeting 20 minute online product demo or evaluate SURVEYOR with a free 30 day trial. Or simply call us toll-free at 1-866-837-3436 or e-mail us at sales@verdiem.com.

About Verdiem

Verdiem is an enterprise software company focused on PC Power Management and Green IT. Verdiem's flagship SURVEYOR software enables customers to centrally control and reduce the energy used by PCs on their network by up to 60 percent without impacting end users or IT. Over 400 corporations, government agencies, and universities have deployed SURVEYOR on over 1 million PCs to have a positive impact on the environment-reducing PC energy waste and carbon footprint. Founded in 2001, Verdiem is a green IT company headquartered in Seattle, Washington with additional offices in the US and UK.

Visit www.verdiem.com

Verdiem Headquarters

1601 Second Avenue
Suite 701
Seattle, WA 98101
(206) 838-2800
Toll-free 1-866-837-3436

www.verdiem.com

