Avolin

Microsoft & Power Management

Separating Fact from Fiction

WHITEPAPER

Many IT professionals overestimate the effectiveness of built-in power saving technologies. While Microsoft Windows and System Center Configuration Manager (SCCM) include power management features, their capabilities are rudimentary and collectively fail to deliver an enterprise-class solution. Consequently, energy savings will be nominal – typically less than 15%.

With the Configuration Manager 1810 version release, Microsoft added a few minor features related to excluding devices from power management and copying settings between collections of PCs. Power management functionality is a "checkbox" requirement – part of a long list of unrelated product features. Microsoft's approach is limited to homogenous Microsoft environments. It does not include Macs or Windows PCs managed by other desktop management systems from HP, IBM or Symantec.

Using a best-of-breed IT energy management solution such as Verdiem Surveyor can increase your energy savings by an additional 30-50%. The result is increased savings that could add up to hundreds of thousands of dollars per year, easily justifying the purchase of an enterprise-class energy management solution.

Where are the savings?

If you are serious about saving energy, you likely have goals for money saved, energy conserved and/or CO2 emissions lowered.

Establishing a baseline

To calculate savings results, it's essential to perform an energy baseline with a sampling of your PCs. System Center provides a rudimentary approach, establishing a baseline for a small subset of your PC fleet. It then generalizes those results across your entire PC fleet, resulting in an apples-to-oranges comparison.

In addition, System Center does not include out-of-the-box savings results. Producing savings results is a manual process. Those results could present accuracy issues, given Microsoft's approach to power and savings calculations. Microsoft makes global settings for energy rates and PC power consumption. Accurate results require accurate input for per-location energy rates and per-model watt consumptions.

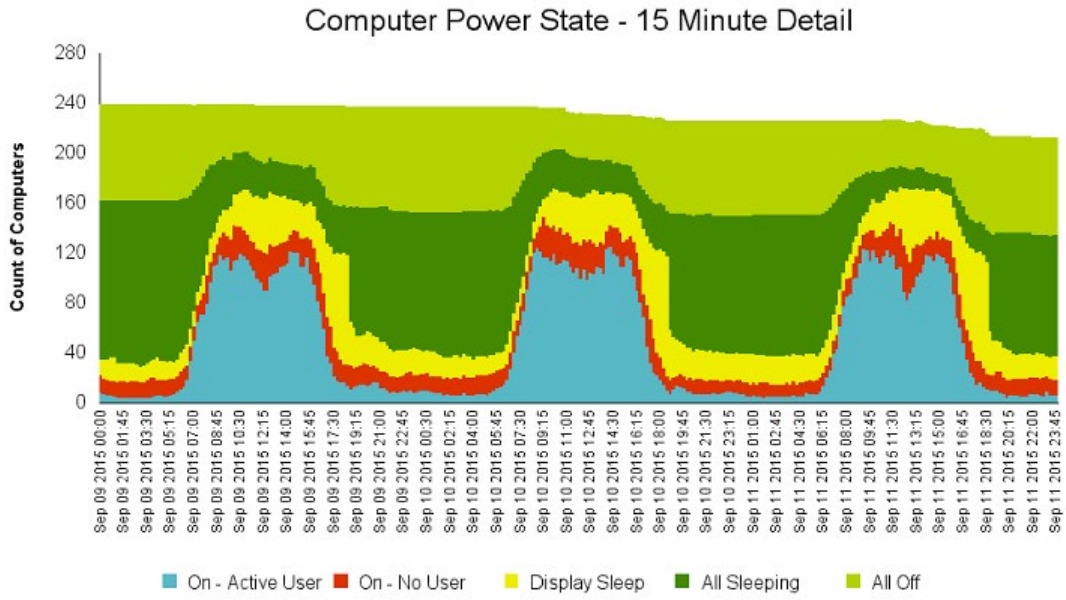
Surveyor provides the most accurate approach to energy management. We uniquely monitor actual activity for PCs and Macs – tracking keyboard usage, mouse clicks, and CPU usage among other measures. We work with you to establish a baseline energy usage profile across your PC fleet before implementing your power saving program. We also support energy data for multiple makes and models of devices and energy rates for multiple locations.

Keeping track of trends

To further exacerbate SCCM's reporting limitations, information used in daily reports is only kept for 31 days, and information for monthly reports is retained for 13 months. Microsoft suggests you create separate spreadsheets to save historical data. Only with considerable effort will you be able to track trends in your organization's energy consumption patterns.

In order to better track trends, Verdiem Surveyor provides easily digestible reports that summarize quantitative results for dollars saved, energy consumption reduced, and CO2 emissions lowered. With our built-in world-class business intelligence (BI) engine – powered by Information Builders, a leading BI provider – you can conduct deeper analysis, such as visualizing opportunities for additional savings. With access to all historical data, you can track trends over time and by different energy policies, departments, locations and other key areas of your operation.

Our analytics engine also allows you to estimate savings opportunities for alternative energy policies, letting you determine the best approach before implementing changes. With our robust reporting platform and highly accurate measurement approach, you can easily share energy savings results with confidence to your executive team or across the entire company.



Are you leaving money on the table?

The number one business driver for adoption of an IT energy management solution is cost savings. However, a Microsoft-only approach significantly limits the savings opportunity.

One size does not fit all

System Center's approach to saving power is extremely limited and must be applied to all PCs in the same way. System Center supports one power saving policy during "peak" hours and another during "non-peak" hours. There is no concept of weekends or holidays. This approach also fails to reflect varying work patterns by department or location.

Verdiem Surveyor monitors actual device utilization, which is then used to create a variety of power policies that match the work patterns of various groups – balancing energy savings with user productivity. Surveyor also distinguishes working hours from evenings, weekends and holidays. The closer association of work patterns and corporate schedules with power saving policies is the most critical factor to increasing energy savings as much of the savings come in the evenings and weekends.

Limiting the audience

System Center is a PC-only solution and provides limited support for Windows operation systems. That means you are giving up a substantial portion of your potential savings. Plus, if you want a solution for growing energy management needs, System Center does not support other IT devices including Macs and servers.

With Verdiem Surveyor, you invest in a platform for IT energy management that includes a broad range of IT devices to measure energy consumption and save energy. Today Surveyor manages Microsoft Windows PCs, Macs and network attached devices.

Avoid frustrated end users

Implementing an IT energy management solution is a moot point if end users lose productivity. A critical requirement is the ability to access PCs from remote or home office sites. System Center does not support remote web access for waking a PC.

Losing critical data

System Center relies solely on the native Office applications to save data when putting machines to sleep or shutting them down. This is not a foolproof approach and does not account for non-Microsoft applications. System Center also does not provide a mechanism for users to opt out of power management. While you would like everyone to be on board with power management, there are situations where it is appropriate to exclude machines, such as security kiosks or specific users running critical applications.

Verdiem Surveyor provides several capabilities that support user access, data integrity and exception scenarios. Users can wake their machines anytime, anywhere from the Internet. When putting machines to sleep or shutting them down, Surveyor safely closes applications and saves open work for a variety of applications – both Microsoft and third party. Plus, we provide tools for IT to easily handle exceptions, whether for certain applications, locations or users.

Trouble falling asleep

Most organizations can expect a large percentage of their Windows machines to exhibit inconsistency entering sleep or standby – known as PC insomnia. Windows does not properly address this issue. With such a large percentage not effectively responding to power saving policies, you will quickly sabotage efforts to reduce energy costs. System Center provides a report that simply lists how many PCs suffer from insomnia and the reason why, but it does not resolve the underlying problem.

Verdiem Surveyor has worked with over 700 enterprise customers and understands this problem well. Surveyor goes beyond reporting on PC insomnia to addressing the root cause, ensuring compliance with your energy savings program.

Waking up is hard to do

Managing PCs for software maintenance is also a challenge due to System Center's limited policy options. All PCs, whether 1,000 or 100,000 in the fleet, must be turned on at the same time and left on until all machines are updated. This approach wastes significant energy. Further, it cannot wake up or shut down PCs on demand, which can be critical during emergency situations such as virus outbreaks.

Verdiem Surveyor can wake PCs – in more manageable size groups – and get them back to sleep with minimal uptime by aligning the software maintenance schedule with flexible power policies. Surveyor also supports on-demand wake up or shut down of part or all of your PC fleet.

Recognize hidden IT costs

Many organizations take an oversimplified view on the total cost of ownership (TCO) for System Center as it relates to power management. The easy thinking is that System Center is already paid for and that IT staff is familiar with using it. True, but misleading when it comes to power management. There are many hidden costs that, when totaled, make Surveyor the lower TCO options, while improving IT efficiency.

Rising help desk costs

With System Center, expect higher help desk call volumes. Some end users will have issues that System Center cannot address, including the ability to wake a machine remotely or opting out of power management. There is also a real risk of data loss when System Center attempts to sleep or shut down a machine while an application is open. Even if IT tries to proactively address application management, their ability to customize System Center is limited. With Verdiem Surveyor, IT empowers end users to access their machines remotely and opt out if necessary – making these self-service activities that help minimize IT involvement and costs.

Another concern is the impact on network performance, which can reduce end user productivity and be another source for an uptick in help desk calls. System Center requires a network-wide broadcast to communicate with the PC fleet. IT is loath to allow such communications that slow down the internal network. With Surveyor, communication between the PC and the central server is very efficient and aligns with best practices of network architects.

Increasing business risk

Keeping PCs updated with the latest software patches and security updates is business critical to avoid exposure of sensitive customer data or access to other internal data or systems. Power management for maintenance windows is also a manual process as System Center power management is not aware when patch or software updates are scheduled.

If a PC cannot be awakened during maintenance updates, it becomes vulnerable. Many Windows PCs have issues waking up, and System Center is limited in its approach – most concerning is the inability to wake up or shut down the PC fleet during emergencies. Surveyor can guarantee that software updates reach their intended targets, ensuring the security of your PC fleet. Surveyor is aware of the System Center software maintenance schedule, which automates the process for IT and minimizes the time that machines need to be on for maintenance. IT can even make these Surveyor configurations from within the familiar System Center interface.

Expensive refresh cycles

Many organizations continue to face multi-million dollar PC refresh cycles. Does IT know how well all those devices are being utilized? Are there little-used machines in your fleet – perhaps second or third machines for an information worker or a little-accessed kiosk machine? IT may have a critical lack of data to help them make this important decision on how to right-size their end user computing fleet. System Center does not provide any data since it does not measure actual device utilization.

Surveyor provides data that can help IT make smarter, more cost-effective decisions. Since we monitor actual usage for all your devices, we can easily identify under-utilized devices that are candidates for elimination, consolidation or virtualization. Soon, we will also provide application utilization data. With both data and application usage metrics, we'll be able to provide prescriptive analytics to assist with the shift toward more mobile and energy-efficient devices.

Summary

It is imperative that IT professional look beyond the course of least resistance with System Center for reducing energy costs. While the built-in power saving capabilities of SCCM may check the box, a best of breed IT energy management solution like Verdiem Surveyor allows for much more.

End users can remain productive while still saving energy, and IT departments can improve efficiency in managing a large PC fleet. Baseline reporting identifies specific energy saving opportunities, and deep historical data tracks long-term trends. The ability to tailor power management to your specific schedule and your diverse IT environment allows for greater savings throughout the organization.

About Verdiem

As a power management solution for PCs, Macs and Windows tablets, Verdiem Surveyor provides a unified approach for IT device data collection, policy management, administration, and analytics. Surveyor offers the most accurate approach to energy management and measurement and can reduce your IT energy costs up to 60 percent.

For more information about Verdiem and how you can start becoming more efficient, email us at info@avolin.com.

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Avolin provides critical software solutions to enterprises around the world, specializing in Customer Relationship Management, Knowledge Management, IT Support and Supply Chain Management. Over 1,400 customers in more than 50 countries use our portfolio of solutions to help them provide outstanding customer service, keep their day-to-day operations running smoothly and make intelligent decisions based on relevant and real-time data. Our customers are at the center of everything we do and our singular goal is to deliver the right solutions for their industry-specific workflows helping to keep them at the forefront of their industries. For more information, visit **www.avolin.com.**