



City of Melbourne Deploys NightWatchman® from 1E on 1,000 Desktops, Saving \$175,000 AUD, Reducing Energy Use by 1,459,000 kWh and Preventing 1,648,670.00 kg of CO₂ from Entering the Atmosphere*

Melbourne is Victoria's capital city and the business, administrative, cultural and recreational hub of the state.

The City of Melbourne's city centre covers 37.6sq km and has a residential population of around 89,759. Each day, around 771,000 people use the city, and Melbourne hosts over a million international visitors each year. The entire Melbourne metropolitan area covers 7,694 sq km and has a population of around 3.9 million.

The City of Melbourne works with the State Government of Victoria to ensure that Melbourne is one of the safest, healthiest and cleanest cities in the world.

Only a vendor with strong environmental credibility could pass the test

Initially looking for a Wake-on-LAN solution that enabled it to wake up machines so that software updates and applications could be automatically and seamlessly deployed across the organization, it quickly became evident to the City of Melbourne's desktop services team that a complimentary solution, which could be used in tandem to shut down PCs when not in use, would generate further efficiencies. City of Melbourne Desktop Services had previously carried out a series of tests on energy efficient devices, but a number of reviews identified that many machines in city council were still being left powered on after hours. As such, the council decided to deploy WakeUp and NightWatchman (collectively known as Power & Patch Management) from 1E across its estate of 1,000 PCs, reducing overall energy use and carbon footprint and to potentially make significant cost savings.

Ashe Potter, Technical Architect at the City of Melbourne and the green IT champion who is responsible for the management of all client-side IT hardware (desktops, laptops, mobile devices), architectural design for IT projects at the City Council, lead the implementation. Potter's primary consideration was to find the greenest solution. As the City of Melbourne was moving to a new six star rated building, only vendors with strong environmental credibility could pass the stringent test.

Solutions Overview



Objectives

Melbourne City Council needed to integrate a solution with its existing IT environment that would enable it to wake up machines out of hours, allowing software updates and applications to be deployed seamlessly and automatically while controlling desktop PC power use more effectively.

Solution Summary

- WakeUp was deployed so that software updates and applications could be automatically and seamlessly deployed. NightWatchman was deployed to enable cost and energy savings by powering down PCs when not in use.

Benefits

- Savings in energy consumption of 1,459,000 kWh since first year of deployment
- Prevented 1,648,670.00 kg of CO₂ from entering the atmosphere, thus demonstrated council commitment to energy reduction
- Cumulative savings of \$175,000 AUD

Case Study - NightWatchman

"We tested a number of solutions before selecting 1E, who came highly recommended to us by Corporate Network Integration, a trusted vendor we use. "No other vendor had a mature enough solution, with proven ability to give us the savings we were looking for. 1E was the established player in this space and integrated seamlessly with the core products in our IT environment," comments Potter.

A Two-Phase Energy Saving Strategy

City of Melbourne adopted a two-pronged energy saving strategy. The first was the transition from old PC hardware and CRT monitors to energy-efficient Ultra Small Form Factor machines and LCD screens from Dell. This in itself has decreased power consumption across the City of Melbourne fleet by 39% and led to a considerable reduction in their energy footprint and also significant cost savings in energy bills.

The second phase of the strategy was the implementation of NightWatchman from 1E to further extend these initial energy and financial savings. NightWatchman was initially pushed out to every machine via the council's System Center Configuration Manager environment. It was then added to the Standard Operating Environment (SOE), so that all new machines automatically received the software. A group policy was created and enabled on the City of Melbourne back-end infrastructure to enforce the automated shutdown of all machines specified. Built-in scripts check every PC for open files and ensure that any work is saved before the computer is switched off. That simple act alone saves tens of thousands of dollars on the electricity bill each year.

All machines at City of Melbourne primary sites now save open documents to a cached location and then safely shutdown. The user is able to prevent or delay the shutdown if they are working beyond 8pm at night; however it ensures that a maximum proportion of the desktop fleet is powered off each night in a controlled fashion.

A Day in the Life of a NightWatchman PC

A typical routine at the City of Melbourne Council is for all PCs be powered off in at 8pm in the evening, powered up later at night when electricity tariffs are cheaper, to be patched with the latest security and antivirus updates, then powered down again before the working day begins, at which point they are powered up again, all without impacting end user productivity or data loss.

"1E has enabled our IT department to seamlessly perform application deployments. Also being able to wake up machines as and when needed, often remotely, has increased the efficiency of the internal IT support function. We also have full control of the entire PC power off/power on cycle, which puts the potential for cash and energy savings firmly in the palm of our hands," says Potter.

"Deploying Power & Patch Management from 1E has proven to be a great way to prevent against unnecessary wasted costs and energy use. We managed the deployment in two stages; first WakeUp, followed by NightWatchman. We have been extremely satisfied with the efficiencies and savings we have seen."

The Right Results

In order to identify the savings potential of NightWatchman, a data logger was setup on one level of the council's building for one month, in order to accurately record power usage on that floor. The first fortnight of testing involved NightWatchman being inactive on the floor, whilst the second set of tests was done whilst NightWatchman was active. The results of these tests have been applied to a formula provided by Facilities Management to accurately measure Watts used against the cost per KWh:

	PCs	kWh saving NightWatchman	Avg \$ cost / kWh	EST. cumulative Saving ref
MTH	96	140,064	0.1127	\$15,785.21
CH2	522	761,598	0.12	\$91,391.76
CH1	382	557,338	0.1171	\$65,264.28
Total	1,000	1,459.000		\$172,441.25

Figure 1: Table to show Watts used against the cost per KWh and cumulative savings since 2005
The formula was: saving = No of PCs x kWh savings/5 year period x cost/kWh

CO₂ savings were calculated as: NightWatchman kWh savings + Hardware kWh savings x 1.13kg CO₂ = 1,648,670.00 kg of CO₂ emissions prevented from entering the atmosphere.

1E – Empowering Efficient IT

We believe every one of our customers should expect more from their IT. Founded in 1997, 1E pioneered advanced PC power management with the release of ground-breaking solutions like NightWatchman® and WakeUp™. That innovative approach has continued with the development of revolutionary concepts like Useful Work™, Drowsy Server® and Computer Health™ as part of a unique range of industry-leading solutions. Headquartered in London and New York and with 14 million licenses deployed world-wide, over 1100 organisations in 42 countries have trusted us to help them to work effectively, productively and sustainably. To date, we have helped our customers save in excess of \$530m in energy costs alone, cutting CO₂ emissions by 4.3 million tons. We have many imitators, but there is only one 1E.

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