

Kiwibank saves thousands of dollars by turning PCs off at night

As part of its wider sustainability programme, Kiwibank researched ways of reducing energy use across its extensive PC network. The installation of PC management software – which automatically shuts down PCs at night – has been a huge success, saved the company tens of thousands of dollars, reduced energy usage and displaced several tonnes of CO₂.

Kiwibank, it's ours!

Launched in 2002, Kiwibank is 100% New Zealand owned. With 700,000 customers, Kiwibank offers a full range of services including personal and business banking, and international services.

Kiwibank, headquartered in Wellington, supports around 1000 staff throughout the country with a network of 900 PCs. Research showed that more than 50% of Kiwibank's PCs were left on overnight and at weekends. It was estimated that significant amounts could be saved, and energy waste reduced, if they could be turned off during these periods.

Saving energy

It was suggested that employees switch PCs off overnight, but as the IT department often required PCs to be left on to apply patches and security updates, this option was not viable. The IT team was keen to measure the energy consumption of IT equipment and looked at trialing a commercial PC power management tool.

NightWatchman, a centralised PC power management solution supplied by Transend Ltd, was chosen to control and report centrally on the power consumption of computers across the entire network. The system allows IT administrators to control the power state of PCs on a network. It can significantly lower energy costs, without affecting user productivity, by powering down computers automatically overnight immediately reducing energy consumption and CO₂ emissions.

Taking action

The PC power management system was first installed across a pilot of 57 PCs and 7 laptops carefully selected as a representative sample. Data detailing energy consumption and PC use was collected over a 4 week period and then benchmarked. During this baseline period, Kiwibank discovered that 60% of desktop PCs, 44% of laptops, and 4% of monitors were left on overnight. During the weekend, 50% of desktop PCs, 50% of laptops, and 4% of monitors were left on, but very few were actually used.

Impressive pilot results

The results showed that if the software was rolled out to all of the network's 900 PCs, the potential annual savings from turning them off at night could be:

- 178,244kWh of electricity
- \$26,737 in electricity costs

Whilst also preventing 35 metric tonnes of CO₂ emissions.



✓ Key features

- Pilot project identified considerable potential savings by automatically shutting down computers at night
- Automated system allows for IT maintenance still to take place at night
- Shut down at preset time each day (or selected days)
- Enables IT to wake up PCs for almost instant delivery of patches and software across entire network

✓ Key benefits

- Return on initial investment in 20 months
- Improved health of PCs
- No interruption to users
- Rapidly lower bottom line with PC energy costs, energy savings and reduction of CO₂
- Comprehensive and accurate reporting on current costs, energy and CO₂ usage
- Opportunity for virus infiltration is reduced, enhancing security and compliance

✓ Sector relevance

- Businesses with large PC networks

A different way of thinking

A change of mindset was required by staff to embrace the new PC power management system. Until this time, they believed that the standard standby/hibernate features were sufficiently energy-efficient. There was little understanding of the energy savings that could be achieved if computers were turned off.

Brenda Fry, IT Coordinator commented, “We were keen that all staff were told about how the new software works and the savings it offered. We ran an internal advertising campaign to promote the changes. We wanted to make it clear that documents would be saved when computers automatically shut down at night and that the software leaves computers switched on if there is evidence of activity on the PC before the programmed shut down time.”

System rollout

With a technology grant of \$26,240 from EECA Business and based on the success of the pilot, the new software was rolled out to the entire Kiwibank PC estate. Readings were taken over a one week period with policy to shut PCs down turned ON, and one week with policy turned OFF (policy meaning control strategies imposed by the PC power management software). By automatically turning machines off at 7pm and on at 7am the savings, when extrapolated, were \$27.32 per PC per year on average, or 182kWh per PC per year.

Actual savings per year would therefore be:

- 163,800kWh
- \$24,570 in electricity costs
- Preventing 33 metric tonnes of CO₂ emissions

The pilot study results had been fairly accurate. The savings could be achieved with a payback period of only 20 months on the initial investment and 3 months return each year after that (covering on-going software and licence fees).

Key personnel

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NightWatchman console

The company perspective

“Before committing to the project we really did our research on how we could make cost and energy savings through our PCs. We looked at many different systems and software. The PC energy management solution has exceeded our expectations in savings and we have had not a single complaint from users. The implementation and company-wide deployment was a success.” – Esme Petelo Head of IT Management Support.

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