

Fujitsu Siemens Computers Implements Green Strategies Internally

Acting Instead of Talking: Fujitsu Siemens Computers – a Green Pioneer

» Environmental friendliness and energy efficiency are increasingly becoming key economic requirements. In this respect, we're setting new bars. «

Kai Flore, CIO, Fujitsu Siemens Computers

→ The challenge

In the face of new IT challenges and growing environmental concerns, Fujitsu Siemens Computers recognized the need to incorporate environmental criteria into its operations and planning. As it evaluated potential actions that would enable it to define and meet green objectives, it quickly became clear that a raft of individual measures across all departments, processes and resources would also lead to considerable cost savings. In a process that has lasted more than two years the company has gained cost savings of 20 percent and more in some areas. Its systematic IT reorientation and the associated financial savings have also led it to become an exemplary model for many of its customers.

→ The solution

It started with green projects which promised a return on investment in less than one year and were simple to implement. For example, energy efficient settings for PCs were created while energy and environmental efficiency in computing centers were defined and applied. When the company introduced these new efficiency measures into its Augsburg computing center it reduced energy consumption from nearly 3 million kWh per year to 2 million kWh per year. This cut CO₂ emissions by nearly a third. Newly established processes guaranteed close collaboration between different functions within the center while further focus was placed upon mobility and collaboration. Web conferencing and presentations reduced travel expenses for mobile employees. These changes were implemented in parallel with each other and were well supported, given that cost/benefit calculations could quickly be proven.



In the Augsburg computing center, the primary focus was placed upon climate control and storage redesign, as well as server consolidation and virtualization. Approximately 350 server systems of various sizes with a data load of approximately 150 to 200 TB were affected by this. Using these measures alone, more than 25% of the energy was saved.

→ Solution components

- Green Computer Center: Dark operation, hybrid climate systems, blade servers, server consolidation, server virtualization, storage consolidation in SAN, central power supply, centralization of the networks
- Green Work Stations: Standard clients, low energy monitors, printer lifecycle management
- Green Collaboration: Microsoft Office Communications Server and Office Live Meeting
- International roll-out of all components

→ Customer benefits

- Significant energy cost savings
- Better space usage in the computing center
- Simpler and more efficient management of clients and printers
- Lower third-party costs such as consumable materials, travel expenses and maintenance
- Strengthening of environmental awareness in the company

→ The project

Computing centers, while fulfilling an essential function, are often seen as a drain on resources. To address this, Fujitsu Siemens Computers systematically examined all components to evaluate potential savings. This process was well worth the effort: machines with high capacities were further optimized thanks to virtualization technology from VMware. Virtualization and consolidation not only take place in the central computing center, but in affiliates centers as well – with tremendous success. For example, BladeFrame systems decreased energy consumption in the server pool by approximately one quarter. The combination of blades and virtual machines helped to reduce the number of servers by half and a central SAN solved the problem of decentralized systems, by ensuring permanent access to the central storage pool is guaranteed. But potential not only exists in the machines. After center illumination was switched from externally controlled systems Fujitsu Siemens Computers then switched the focus to constant temperature monitoring. By increasing the temperature threshold value to approximately 25°C, between 15 and 20 percent of the climate conditioning costs were saved. The operation of central hybrid acclimatization systems also brought an additional decrease in costs of between 20 and 30 percent. Furthermore, centralization of an uninterrupted electrical supply and network components significantly reduced electricity needs.

Examining the company's workstations also revealed further possibilities. As a result, energy consumption became an absolutely critical criterion in the choice of equipment leading to choosing integrated power management, ECO buttons and innovative cooling systems. The introduction of our own standard clients PCs also brought 15% in energy savings, with very few adjustments. This efficiency is even more marked for users of the Fujitsu Siemens Computers' DeskView system management solution. The use of energy saving flat screens with preset, reduced brightness reduced the energy consumption of monitors by a flat 40 percent. The largest environmental potential, however, was printer usage. Fewer, centrally placed same brand printers, central management and maintenance, guarantee constant control of resource consumption which is further supported by simple measures such as standard double sided printing and black/white printing.

Up to 70 percent of the employees at Fujitsu Siemens Computers work with laptops which currently require half as much energy as normal desktop computers. The systematic use of collaboration solutions such as Weber, Net-meetings, Office Communications Server and Office Live Meeting significantly reduced the company's travel expenses.

→ A record of success

The overall impact of the environmental measures was surprising even to those responsible for them. Not only was return on investment achieved in less than one year, but the cost savings for electricity and consumable materials were quickly reflected in the budget. Further, environmental awareness within the company has increased considerably. As a result, initiatives for additional environmental actions are coming increasingly from employees. Customer requests for the proven green solutions are also increasing. Consequently, additional environmental measures are planned. A team is tracking the remaining heat nests in the computing centers; additional virtualization, consolidation and automation will increase equipment loads; and storage pooling will also receive backup pooling using Fujitsu Siemens Computers' Contractor. However, the company also recognizes the importance of remaining receptive to new 'environmental' initiatives.

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