

Sustainable financial investments in a sustainable data centre



Markus Egger, Head of IT

Alternative Bank Schweiz (ABS) is the ethical and ecological bank for people who like to know what is happening with their money. Alternative Bank Switzerland publishes all the loans it grants.

This ensures that you know what your money achieves and even what good it does. ABS finances and invests in ecological and ethical projects and companies. It does not seek to maximise profits, focusing instead on sustainability and the ethical principles that this requires.

The Alternative Bank has operated as a savings and credit bank for some 20 years and currently caters to around 25,000 clients. Investments are made in accordance with ecological and ethical criteria. Sustainability is also an important topic in the Alternative Bank's day-to-day operations: for instance, the bank's headquarters are situated in a building which conforms to the high-grade Minergie P+ standard. The operation of the IT infrastructure therefore also aims to meet ecological and ethical criteria.

Solution

In 2007, the bank started outsourcing its IT operations to Swisscom IT Services. Swisscom runs the Finnova banking application in a professional manner and according to the highest requirements in terms of security and reliability. The application is run on servers located in the Zollikofen data centre which are powered entirely by locally generated renewable energy, reducing the CO2 emissions produced by the data centre's operations by around 90%. Thanks to an optimised ventilation system and efficiency measures, the Zollikofen data centre saves around 4.5 million kilowatt-hours per year in comparison to previous generations of data centres, which equates to the energy consumption of around 1000 households. Further considerable savings in energy consumption were also made



"By outsourcing our IT operations to Swisscom, the Alternative Bank has been able to focus more on its core business and is certain that the operations are being carried out according to the strictest ecological criteria."

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by virtualising the servers that run Finnova. All of the servers in the Zollikofen data centre are virtualised, with the exception of two applications and a file server.

The main focus for ensuring energy efficiency is ventilation, as the ventilation system alone uses a good third of the data centre's energy needs. Here, energy savings of up to 40 percent can be made. The Zollikofen data centre makes good use of the "free cooling" principle throughout the different seasons: In the summer, traditional cooling methods are used, whereas in the winter, the cold outside air is fed into the data centre. Green IT is more than just "hot air", particularly when air plays such a decisive role in saving energy.

New data centre in Berne

One of Europe's most modern and efficient data centres is being built in the Business Park in Berne-Wankdorf. The new Swisscom data centre will set further benchmarks in the fields of energy efficiency and technology. The data centre will initially be equipped with a maximum of seven modules, each with an effective output of 600

kilowatts. The PUE (power usage efficiency) value achieves the top rating of 1.2 thanks to extremely efficient power usage. In comparison, the average PUE value for data centres in Europe is 1.95. This power usage enables Swisscom to reduce power loss by around 75 percent. Construction work is expected to begin mid-2012.

Benefits at a glance

The Alternative Bank can therefore achieve multiple goals at once:

- The costs for optimising and updating hardware and software in IT operations can be reduced.
- The operation of the banking applications fulfils the highest standards in terms of data security and reliability and meets the requirements of the major banks.
- Energy efficiency can be increased in IT operations. As a result, around 66 tonnes of CO₂ per year (equating to the annual CO₂ emissions of 14 cars) and 420 MWh (equating to the energy consumption of around 84 households) will be saved.

Green ICT Facts

Energy saving: 420 MWh/year

CO₂ reduction: 66 t/year

This energy saving corresponds to the annual energy consumption of 84 households.

The CO₂ saving corresponds to the annual CO₂ emissions of around 14 cars or the CO₂ retained by 42 trees (covering an area equivalent to around a quarter of a football pitch). Calculation model co-developed and verified by:



Swisscom Cloud Computing Services are between 20% and 90% more environmentally friendly than operating services on proprietary servers.

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