

Go green with the IBM System z9 BC mainframe



“As one of the biggest consumers of utility power, data centres are a major contributor to greenhouse emissions. This makes them an easy target for legislative initiatives regarding buildings and energy efficiency.”¹

George Rockett, director of the UK Datacentre Networking Group.

Overview

- ***As the need to conserve energy and cut CO₂ emissions increases, pressure is mounting on IT departments to improve efficiency.***
- ***By replacing dozens of small servers with a single large system, your business could significantly reduce its carbon footprint and cut electricity costs.***

The energy debate heats up

With global temperatures on the rise, many environmental experts are calling for significant reductions in the generation of carbon dioxide (CO₂) from fossil fuels. Commercial electricity consumption is a major factor in rising atmospheric CO₂ levels, and data centres are a significant – and growing – part of the problem. Worldwide, data centres are reported to consume 40 terawatt hours of electricity each year, producing an estimated 17.2 billion tonnes of CO₂ emissions.^{1,2}

Some forward-thinking companies have already embraced energy-conscious policies for the sake of lower electricity costs, and are also leveraging the significant PR value of such initiatives.

The likely strengthening of government legislation designed to cut commercial CO₂ emissions may put pressure on other businesses to follow suit in order to comply, and so incur additional costs.

Fewer servers, more efficiency

The proliferation of servers in the average data centre is a major obstacle to achieving high energy efficiency. Small and mid-sized businesses might typically operate dozens or even hundreds of stand-alone servers, each of which might typically run at less than 20 percent average utilisation.

By replacing a large number of small, under-utilised servers with a single server that can run at almost 100 percent utilisation, your business could slash electricity consumption, while freeing up valuable floorspace in the data centre.

“We are committed at the highest levels of management to energy savings and, wherever possible, reducing the impact of climate change. The IBM System z9 BC is helping us to meet this goal, by enabling the same computing work to be done for a lower consumption of electricity, and with lower cooling requirements.”

Tim Simpson, IT Support Manager,
Dundee City Council.

Powering a greener business

A single IBM System z9 Business Class (z9 BC) mainframe might replace more than 60 commonly installed Intel®-powered servers, freeing up floorspace, simplifying physical maintenance and dramatically reducing energy consumption.

As energy costs continue to rise rapidly – the DTI reports that average commercial electricity prices increased in real terms by 48 percent in the year to Q1 2006³ – businesses that can reduce their energy consumption are well positioned to gain significant competitive advantage in terms of lower operating costs.

Faced with rising costs for office space and electricity, can your business afford to keep running tens or hundreds of stand-alone servers – when a z9 BC could do the same work more reliably, in a smaller space and at lower cost?

In addition to reducing electricity costs and improving energy efficiency, the z9 BC could make your business part of the global effort to cut carbon emissions.

Replacing 60 Intel-powered servers with a single z9 BC could save 160,944 kWh each year, cutting 69 tonnes of CO₂ emissions² – as much as an area of mature forest the size of 17 football fields can remove from the atmosphere in the same period⁴. If your business takes corporate responsibility seriously, moving to a z9 BC could play a major role in reducing your carbon footprint.

System z9 Business Class

Mainframe technology has powered the world's largest organisations for decades, from major banks and insurance companies to retailers and distributors.

The z9 BC is the first mainframe specifically designed for small and mid-sized businesses. Capable of replacing hundreds of stand-alone servers, the z9 BC runs a multitude of Linux applications and offers outstanding reliability, security and ease of management.

For more information

For further information on how the z9 BC platform could help your business reduce its carbon footprint and cut operational costs, visit: **ibm.com/systems/uk/z/ecoframe**

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Sources

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