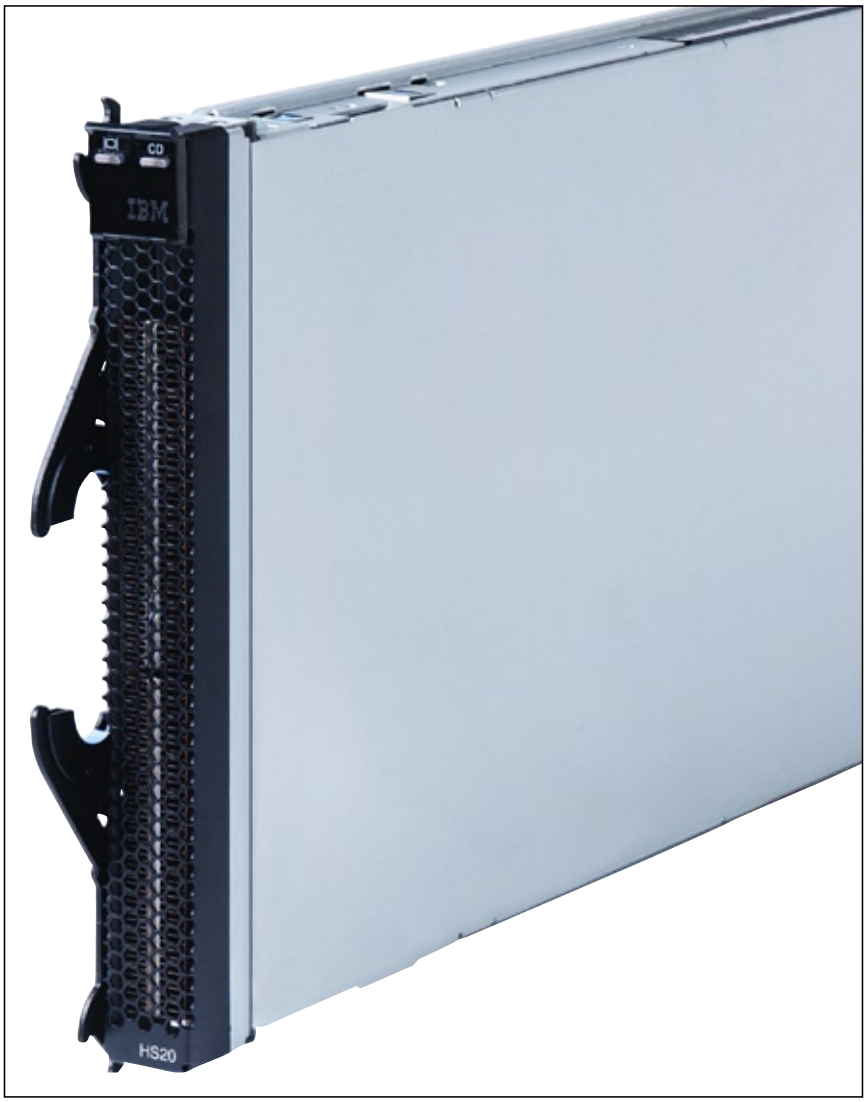
City of Stirling saves $1 Million in IT costs with IBM® BladeCenter server infrastructure and virtualisation technology

Overview

- ***Problem***
  The City of Stirling, Western Australia wanted to consolidate the 45 production servers in its head office, which supported around 850 staff. The council needed a technology supplier that could help with reducing technology costs, power consumption and environmental footprint.
- ***Solution***
  The City of Stirling engaged IBM Business Partner Corporate Express IT to replace its existing datacentre with IBM BladeCenter HS21 blade servers. It used VMware virtual server technology to consolidate 45 production servers into just seven blade servers. This infrastructure was duplicated at a second datacentre for disaster recovery purposes.
- ***Benefits***
  The IBM BladeCenter technology provides the City of Stirling with a cost-effective, robust infrastructure on a smaller footprint. The IBM blade servers with virtualisation technology make better use of server resources, speed up application deployment and save the City an estimated $1 million in power, hardware, software and maintenance costs over 5 years.



About City of Stirling

The City of Stirling is the largest local government council in Western Australia, by population, and in the top ten nationally. Within Stirling you will find a vibrant community and a City renowned not only for its beautiful parks, reserves and coastline, but also for its economic, environmental and community development initiatives.

The City covers an area of over 100km^2 and services a population of 187,000 with facilities such as libraries, community centres, a golf course and recreational and aquatic centres. The City has over 1,000 kilometres of roads and over $1 billion in assets.

Costs creeping up

City of Stirling's head office housed 45 servers, running Windows 2000 Server, Windows Server 2003 and Linux operating systems. The servers supported a range of financial, document management, business and networking applications.

The City has two main sites: a head office and disaster recovery site. Its IT team also supports infrastructure at 25 remote sites across the City, servicing nearly 850 users in total.

In late 2005, City of Stirling's Chief Technology Officer Peter Bennington sat down with IBM Business Partner Corporate Express IT to discuss how the City could consolidate the costly server infrastructure at its head office.

"We wanted to challenge the paradigm of buying multiple new servers for each new application when they typically only used 10 to 20 percent of the available resources," said Bennington. "With 45 servers in production and a duplicate set at the disaster recovery site, the anticipated hardware refresh costs were becoming increasingly difficult to cost justify and were consuming significant technical resources to support and maintain. Compounding this issue was the number of new software implementations planned for the next 3-5 years.'"

"The City of Stirling's power bills were also creeping up all the time so saving on energy costs was a key driver for the City," said John Wilson, Account Manager, IT Solutions at Corporate Express IT. "These days, councils everywhere are focussing on sustainability and saving on power."

Consolidation with IBM BladeCenter

Corporate Express IT – a supplier to City of Stirling for 20 years – recommended the City migrate its existing server environment to IBM BladeCenter blade servers, creating a more efficient, cost-effective datacentre that was easier to maintain and sustainable over the long term. This approach was in line with the IT strategy of consolidating and rationalising IT infrastructure through virtualisation technologies.

By mid-2007, City of Stirling had replaced the 90 production and test servers with just seven IBM BladeCenter HS21 blade servers. The City used VMware virtualisation technology to run up to 20 virtual servers on each blade server.

"We have been able to consolidate our infrastructure down to seven physical servers, significantly improving our resource utilisation of both people and technology," said Bennington.

"We have created an environment with 45 production servers and the same for the test and development environments, but we only have to manage seven physical servers. On one blade, we might run 20 development and production servers. If technical personnel need to upgrade the memory or firmware, they can place a server in maintenance mode and temporarily run those virtual servers across the remaining six blade servers without any downtime. This has increased our service levels to the business and improved our flexibility and responsiveness to our internal and external customers."

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– Peter Bennington Chief Technology Officer, City of Sterling.

Overall savings of $1 million

In total, Bennington calculated that the City of Stirling will save around $1 million in power, hardware, software, maintenance and implementation effort over 5 years thanks to the new IBM blade server infrastructure and virtualisation technologies.

"If we hadn't implemented the IBM BladeCenter blade servers, we would have had to purchase 90 new physical servers every 3 years which would have cost us around $400,000 on each occasion in just capital hardware costs," says Bennington.

"With the IBM blade servers and VMware virtualisation technology, we replaced 90 physical servers for only $115,000."

Bennington estimates the council will save around $200,000 each year because of the lower hardware refresh costs.

"We will also make significant savings every year on datacentre power and cooling costs which brings us in line with the Council's sustainability policy to reduce power consumption", said Bennington. "The blade servers only takes one-third of the space in the data centre." This has allowed the City to use some of it spare computing capacity to take on data processing work for a mining company. This arrangement generates revenue, further offsetting the costs of its technology operations.

A close working relationship

Following the success of this server consolidation project, the City of Stirling purchased IBM System x336 servers to replace the existing servers at its 25 remote sites.

"We are replacing all of our servers with IBM," said Bennington . "IBM's server products are robust and reliable and they provide excellent service. It's also good to work with a vendor that understands our sustainability commitments and has its own environmental policies."

The implementation services provided by Corporate Express IT were also crucial to the success of the implementation.

"Their advice on the technology and the training they performed on the IBM BladeCenter platform was exceptional," said Bennington. "They had their consultants work closely with the IT staff to ensure that we fully understood how the IBM BladeCenter and VMware products integrated."

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>
> *– Peter Bennington Chief Technology Officer, City of Sterling.*

For more information

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