



Windows Server® 2008 R2

Customer Solution Case Study



Customer: Chester Zoo

Web Site: www.chesterzoo.org

Number of Employees: 500

Country or Region: United Kingdom

Industry: Nonprofit

Partner: Nviron

Partner Web Site: www.nviron.com

Customer Profile

Chester Zoo, in the United Kingdom, is home to around 400 species, many of which are endangered. It has more than 1.3 million visitors a year.

Software and Services

- Microsoft Server Product Portfolio
 - Windows Server 2008 R2 Enterprise
- Technologies
 - Hyper-V

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Zoo Supports Research and Education While Reducing Its Carbon Footprint

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Phillip Morris, IT Manager, Chester Zoo

Based in the United Kingdom (U.K.), Chester Zoo, home to more than 7,000 animals and 400 species, provides an environment that closely resembles their natural habitats. With a mission to support conservation and education in the preservation and wellbeing of wildlife, the zoo needed high availability computing. IT administrators virtualised IT systems using the Windows Server® 2008 R2 operating system to provide a stable environment for important data that can be easily accessed.

Business Needs

Chester Zoo was founded in 1930 in Chester by George Mottershead, a zoologist who dedicated his life's work to creating a place for animals that was as close to their natural environments as possible. Mottershead's vision is alive today as 1.3 million visitors come to the zoo each year to be educated and enthralled—and to share the vision of conservation and protection of wildlife.

In addition to providing a home for animals outside their natural habitats,

Chester Zoo is involved in many projects that support the study and preservation of animals. Researchers affiliated with the zoo participate in projects around the world, such as The Jaguar project, studying the behavioural patterns of Jaguars in the Brazilian Wetlands.

Technology is an integral part of the administration of a modern zoo such as Chester.

- Researchers need direct access to their data.
- Veterinarians and zookeepers need to

keep careful records of the animals in their care.

- Marketing and development officers need to communicate the zoo's message to the public and funding sources.
- Administrators need to manage all the retail and office facilities that play a part in running such a large attraction.

In addition to selling tickets and opportunities to sponsor animals on its Web site, the zoo provides educational materials online and acts as a hosting agency for small animal-related charitable groups that don't have the resources to produce their own Web sites.

Much of the data generated was stored on servers at the zoo. Phillip Morris, IT Manager at Chester Zoo, says: "If our servers go down, not only are our ticket and retail sales affected, but it can also impact researchers and charitable groups around the world."

And, as more data was added, the need for extra servers increased. IT administrators were concerned about the cost of continuing to buy additional servers and the power required to run them. Virtualisation seemed to be the best solution, offering a cost-effective robust IT environment with a low carbon footprint.

Solution

Morris was researching server virtualisation options and considered using software produced by VMware. Shortly after completing a capacity plan with VMware, Morris received a call inviting him to attend a seminar hosted by Microsoft® Gold Certified Partner Nviron, showcasing Windows Server 2008 R2. Morris attended the seminar, plus other seminars offered by Nviron, and asked the company to submit a

proposal to Chester Zoo. "When I saw the way Hyper-V works within Windows Server 2008 R2 to allow live migration from one server to another, the decision was easy," says Morris.

Nviron provided some additional capacity planning and presented a proposal to zoo trustees that was accepted. "Nviron works with several different virtualisation technologies, so we could choose a solution to fit our needs exactly," says Morris. The value offered by Windows Server 2008 R2 made it a cost-effective option. "It's not just a virtualisation solution, but an entire environment within which we can operate. Dedicated virtualisation products don't offer all the extra pieces of software that come with Windows Server 2008 R2," says Morris.

Windows Server 2008 R2 Enterprise was deployed in January 2009. All systems at the zoo—including the Web site and ticketing system at the gates—are scheduled to be integrated into Windows Server 2008 R2 in a phased approach. The main servers were virtualised in January, with additional servers added several months later. One of the last steps is to create a fully redundant site, for backup and disaster recovery. "So far, implementation has been smooth. We virtualised our whole accounting system within an hour. Our users had no idea we were working on the system. That's the beauty of live migration," says Morris.

Benefits

As a charitable organisation responsible for the wellbeing of thousands of animals, a cost-effective, reliable infrastructure is top priority for Chester Zoo. IT systems that support conservation and education while reducing the zoo's carbon footprint

are an important part of this infrastructure. With Windows Server 2008 R2, the zoo can build a stable, reliable environment for its data.

- **Green IT.** "We're two-time winners of the Queen's Award for Enterprise (Sustainable Development) so we're interested in anything we can do to reduce our carbon footprint," says Morris. "We've already decreased it substantially by not buying 30 more pieces of hardware, and we expect to see significant savings in electricity used to power and cool the servers."
- **Cost-effective solution.** As a charitable organisation, Chester Zoo is eligible for charitable and educational licensing. "Even without the special academic pricing, Windows Server 2008 R2 would still save us money by reducing energy consumption and cutting our IT investment," says Morris.
- **Direct access.** Remote access feature DirectAccess streamlines the way researchers access their data. "Our researchers log on from all over the world, so this will be a big benefit," says Morris.
- **Increased stability and improved backup and recovery.** Running virtual servers on Windows Server 2008 R2 ensures that vital information is protected. "Before virtualisation, the system was backed up every 12 hours, so we had the potential to lose a whole day's worth of data. Now we have immediate backup at all times," says Morris.
- **High user availability.** The core infrastructure of the zoo, including administration and research, relies on easy access to data. With live migration, IT staff can repair and maintain servers with no impact on users.