



OPEN MINDS DELIVER LIFEKEEPER TO ENSURE 24/7 AVAILABILITY OF THEATRE'S ONLINE TICKETING SYSTEM

Birmingham Hippodrome gives SteelEye LifeKeeper® two Thumbs up

The busiest single theatre in the UK, Birmingham Hippodrome boasts average annual audiences of 500,000, and can sell £80,000-£85,000 worth of tickets in a single day.

Even a few hours of downtime can be expensive for the popular theatre.

The theatre with the highest regular annual attendance in the UK has selected SteelEye LifeKeeper software to safeguard its online ticketing system so that it is available 24/7, even in the event of software bugs, hardware failure and unanticipated disasters. LifeKeeper will meet Birmingham Hippodrome's failover, replication and disaster recovery needs. By moving off a hosted server and onto its own in-house networking infrastructure, the theatre has also freed itself to develop a new marketing strategy based around its website and database of customers.



Birmingham Hippodrome Theatre

Before choosing LifeKeeper, Birmingham Hippodrome shared a hosted system from Birmingham Arts IT (BAIT) with 14 charitable trusts and arts venues across the city of Birmingham. BAIT provided Birmingham Hippodrome with its ticketing system and all back-office functions. Because the server was shared, improvements and modifications had to be approved by all other organisations. Birmingham Hippodrome could not tailor the server to suit its own marketing needs; nor could Birmingham Hippodrome deploy a disaster recovery strategy – unless all other

organisations sharing the server agreed to the potentially expensive upgrade.

The busiest single theatre in the UK, Birmingham Hippodrome boasts average annual audiences of 500,000, and can sell £80,000-£85,000 worth of tickets in a single day. Most of these tickets sales occur via the Internet. According to Director of Operations Mike Bradford, the theatre's online ticketing is "very much a 24/7 system," with the only "low" period of sales occurring around two o'clock in the morning.



A single day of server downtime for the Birmingham Hippodrome costs them approximately £20,000. Even a few hours of downtime can be expensive for the popular theatre.

In two years with BAIT, Birmingham Hippodrome experienced two major outages, each with downtime

of more than one day. Bradford said it was not these occasional outages, but rather *“the fact that there was always the possibility of something worse happening, and the associated worry it caused us, that made us go our own way and bring the IT in-house.”*

The Challenge

The busiest single theatre in the UK, Birmingham Hippodrome boasts average annual audiences of around 500,000, and can sell £80,000-£85,000 worth of tickets in a single day.

Birmingham Hippodrome wrote a detailed specification calling for a new network infrastructure that would offer full failover and disaster recovery, with no single point of failure. The new infrastructure would need to be flexible and resilient enough to enable Birmingham Hippodrome to tailor the system to improve marketing around its website and database of customers. That meant the infrastructure would essentially need to run all back-office tasks, including the implementation of a

new emailing system and the theatre’s own ticket booking, de-booking and credit card service. The system would need to support Birmingham Hippodrome’s three partner organisations: Birmingham Hippodrome, Birmingham Royal Ballet and DanceXchange. Birmingham Hippodrome put its specification to tender and contracted Linux specialist reseller eSpida, an IT infrastructure consultancy. eSpida was supported by SteelEye UK distributor Open Minds.

The Solution

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To implement full failover and disaster recovery, eSpida built two server rooms approximately a mile from each other, each replicating to the other so that if one server room failed, the other server would pick up. They also built two leased lines and established two service providers at two points in the city with two separate mains supplies. To simplify server *“housekeeping,”* Birmingham Hippodrome’s network infrastructure has been virtualized, with 20 virtualized servers on IBMx3650 hardware and twin dual-core CPUs with 32 GB RAM and local disk.

Perhaps most important, SteelEye LifeKeeper ensures the continuous availability of Birmingham Hippodrome’s applications and online ticketing system by maintaining system uptime. LifeKeeper works by creating a

“mirrored” server system identical to the first server, so that if the first server fails, LifeKeeper can shut down the primary server and transfer all control to the secondary server in such a way that clients have continuous access to applications and data. This capability ensures that all clients – not only Birmingham Hippodrome staff, but also customers shopping for tickets online – are not affected by anticipated and unanticipated system failures. LifeKeeper monitors system and application health, maintains client connectivity and provides uninterrupted data access, hence giving Birmingham Hippodrome the reliable, fault-resilient system they need.



Benefits

"The main benefit of Open Minds is the quality of telephone support when you phone up with a problem.....You talk straight away to highly skilled technology-minded people who know exactly what you're talking about, exactly how you've implemented and are using the product."

"LifeKeeper is very simple, very effective and extremely easy to use. It does what it is supposed to do and we are happy with it."



Nick Roberts, a technical sales consultant for eSpida, said: *"One of the reasons we use LifeKeeper is that the history and heritage of the product goes back such a long way—decades, really. Especially in this industry, where technologies come and go so often, it's good to see something out there that's tried and tested like SteelEye LifeKeeper. Your investment is safe with a product like that because you know it'll still be there years from now."*

Another benefit of LifeKeeper, Roberts went on to say, is that installation and set-up is a quick and hassle-free process, even with testing. Although high availability and protection of the theatre's overall operations may have seemed like a daunting task, SteelEye LifeKeeper was installed, configured, tested and in production within a few days.

Roberts added: *"As a Linux specialist, I appreciate the way LifeKeeper helps me to grow Linux within infrastructures and displace Microsoft for cheaper, more reliable, more secure Linux."*

Throughout the deployment of LifeKeeper, the eSpida team enjoyed the support of UK distributor Open Minds. *"The main benefit of Open Minds is the quality of telephone support when you phone up with a problem,"* said Roberts. *"You don't have to go through layers and layers of support people, being given various ticket numbers and response times. You talk straight away to highly skilled technology-minded people who know exactly what you're talking about, exactly how you've implemented and are using the product. Open Minds collapses the whole process very quickly."*

Birmingham Hippodrome's new networking infrastructure has been in place since January 2008. Systems Administrator Ben Magson said he tests the servers every week, performing a failover so that each system gets a turn to be fully in service for a week. Each server therefore shares the load. For the first six months of operation, Magson noted, one of the servers was freezing up about once a month. In each case, LifeKeeper failed over to the backup server in under a minute. The few initial instances of server failure went largely unnoticed, thanks to LifeKeeper's failover solution. Bradford said future IT plans for the theatre involve replicating data to a remote site instead of tape backups.

"We are very pleased with the recovery time," said Magson. *"LifeKeeper is very simple, very effective and extremely easy to use. It does what it is supposed to do and we are happy with it."*

Shobana Patel, Managing Director of Open Minds, commented, *"eSpida has worked with us for many years now. They are highly trained professionals and have the expertise to take on a major project such as the Hippodrome. LifeKeeper enables them to provide expertise not just in hardware and installation, but also supplementary services related to disaster recovery."*



About Birmingham Hippodrome



About eSpida

About Open Minds High Availability Solutions Ltd (www.openminds.co.uk)



Birmingham Hippodrome is one of the UK's most visited theatres attracting 500,000 customers through its doors each year. Home to the acclaimed Birmingham Royal Ballet and DanceXchange it boasts the largest pantomime productions in the UK with star names and record breaking seasons.

Birmingham Hippodrome, the first English home of Welsh National Opera, attracts large scale productions including award winning West End musicals, international dance companies and performers, children's productions

eSpida offers IT infrastructure consultancy using Linux and open-source technology, within mixed platform environments.

eSpida's team of in-house technical consultants helps IT departments

Open Minds provides software solutions, support, consultancy and training for High Availability (Fault Resilience) and Disaster Recovery solutions for IT systems.

Open Minds' strong team of technical consultants offer experience gained from many years of successfully implementing and supporting SteelEye solutions throughout the world. Open Minds are the registered SteelEye Solution

and the biggest names in comedy. Birmingham Hippodrome is one of the best-equipped theatre complexes in Europe with vastly improved public spaces, a studio theatre and impressive dance facilities. In 2008, Birmingham Hippodrome, together with its partner DanceXchange, launched Birmingham's first International Dance Festival, the next one is planned for 2010. Birmingham Hippodrome receives no revenue funding.

deliver technically based projects successfully and on time. We pride ourselves upon our high level of technical expertise, coupled with 'real-world' understanding of IT issues and budget constraints.

Centre for the UK, Ireland, South Africa and the Gulf, and partners with VAR's, Software Houses and Systems Integrators to provide a full technical backup including pre-sales, installation services and support required to fully implement a high-availability solution on Linux, Windows and virtual environments. For more information, please visit www.openminds.co.uk

