



THE E-BUSINESS LIFE PRESERVER

Open Minds provides high-availability for I Want One of Those dot com with SteelEye LifeKeeper.

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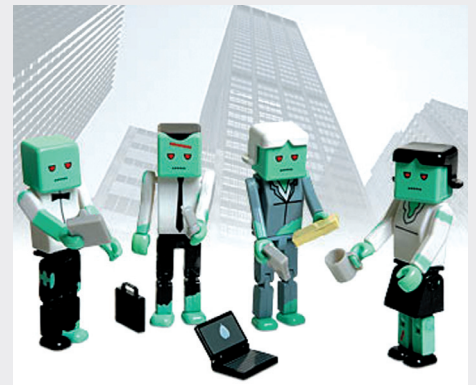
Stuff you don't need ... but you really, really want is the theme of I Want One of Those dot com, a web-based gift retailer. Ensuring that web shoppers can find and buy this stuff is a top IT priority and recently led to the implementation of a new business continuity solution from SteelEye Technology by Open Minds.

IWOOT, as it is colloquially known, has an enormous selection of constantly updated gifts available in six price bands. These range from less than £20 through £50-£100 and on to money no object.

The business started trading in January 2000 with just £10,000 and simply hasn't looked back. Sales in 2006 went past £10 million and are set to grow another 40% in 2007.

Naturally, the company has had a substantial IT component to its business for some time. Sagar Vadher is the Head of IT at IWOOT and explains that it uses industry standard X86 servers running a mix of Windows and Linux with PC workstations for development, management and monitoring.

As can be expected the busiest time of the year is the Christmas period with November and December being the busiest months. This puts an increasing strain on the core Postgres database system handling online transactions and its continued availability is of great concern.



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The experience prompted a rethink. With Christmas being the most important trading period there simply has to be dependable server availability. There were nine servers in the ERP system then in use, in other words, several single points of failure; not good at all from a business continuity sense.

IWOOT decided to redesign its infrastructure for business continuity and choose to migrate to a new ERP system running on just two servers in a high-availability configuration.

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For the ERP software they moved away from a proprietary system based on Uniface and into the Java/open source environment, selecting the web-based OfBiz from the Apache Foundation. The application was customised to fit the needs of the business and rechristened jWOOT3.

Why did they choose to go an open source route? *"We're looking to cut costs by moving to open source and avoiding ongoing license fees."*

WOOT3 does absolutely everything they need, from online purchase, call centre operations, packing and shipping. It is linked to four web servers and customers interact with jWOOT3 through them and a pair of database servers running ElasticPath, an e-commerce shopping basket application. The quartet of web servers has a hardware load balancer ensuring that individual ones don't become overloaded and fail. Sagar needed to ensure that the jWOOT3 application was continuously available as well.

A jWOOT3 server outage could cost tens of thousands of pounds per hour of lost revenue as well as affecting customers' perception of the IWOOT brand. Business continuity is a given. For server hardware, Vadher and his team decided to use a high-availability dual HP DL380 server cluster with a MSA500 SAN Storage array, running Novell SuSE Linux Enterprise Server. Sagar's team envisaged that the servers would run active-passive and initially aimed to implement high-availability themselves by integrating EVMS, OCFS and Heartbeat V2. IWOOT has a software and system development strategy that emphasises the use of working components, Sagar says: *"We're not looking to build from scratch; we prefer to customise and integrate. The team is good at this: We developed and implemented jWOOT3 in just three months."*

However, the high-availability integration task was different, and proved very problematic because of the

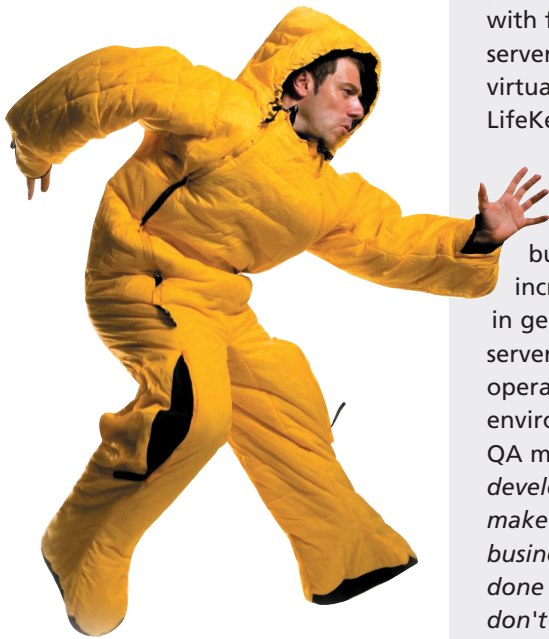
lack of experience within the team to implement the design.

Three weeks before the go live date, IWOOT experienced problems with the installation: the shared storage was lost every time a node went down. Sagar turned to Open Minds (<http://www.openminds.co.uk/>), a specialist disaster recovery and high-availability solutions supplier to assist. *"It became apparent that there was too short a time to get to a reliable live state before the Christmas season started. We spoke to Open Minds and they recommended LifeKeeper from SteelEye Technology. It manages the system and, if the active node crashes, automatically fails over to the second node."*

SteelEye Technology's LifeKeeper software (<http://www.steeleye.com/>) constantly monitors the health of critical applications, including the database, and servers. On detection of any problem, a recovery process is automatically launched. Typically, this involves restarting the application on another server within the IT cluster. Because all data associated with the jWOOT3 application resides on shared storage, it's immediately available to the newly active server. LifeKeeper also takes care of switching over all IP addresses, so that current connections are seamlessly moved to the new server

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How did LifeKeeper's costs fit in with IWOOT's cost-saving aims? There is no on going license cost, Sagar says: *"LifeKeeper is a one-off cost and depreciated over five years."*

One aspect of SteelEye's solutions that is not presently being used is replication. Sagar explains: *"If we had configured the servers as an active:active pair then we'd use both server clustering and replication."*

An aspect that might be used in the future is LifeKeeper's support for protecting virtual server environments with failover from a physical to physical server, a physical to a virtual server, virtual to virtual and virtual to physical. LifeKeeper supports both VMware and XEN virtualisation.

Sagar adds that the LifeKeeper business continuity software has increased IT department productivity in general as well as safeguarding ERP server availability. He explains that they operate in three modes: the production environment; a test environment and a QA mode: *"We are continually developing the system. Now we can make a deployment to a live system in business hours. We would have to have done this out of hours before. Now we don't have to worry so much."*

From October onwards we will have to stop development but we now have the means to deploy to the inactive node and test out system changes. It certainly helps us in the testing process."

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Open Minds is always extremely helpful: *"They are SteelEye's competence centre in the UK and have been absolutely fantastic."* In effect, LifeKeeper has safeguarded the hugely important Christmas trading season in 2007 on the ERP server front. It has turned out to be the vital part of the redesigned ERP infrastructure and its deployment removed a big risk threatening the viability of the jWOOT3 ERP system.

Unlike the gifts highlighted on the IWOOT web site, LifeKeeper is both Stuff you do need ... and you really, really want!

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

Open Minds High Availability Solutions are the UK and Ireland Competency Centre for the full range of SteelEye products. This means that Open Minds provide both pre- and post sales support to anyone deploying or evaluating any of the SteelEye product range.

Applications recovery requires many components such as hardware, networking and software to integrate and work together to provide applications availability to end users. As the UK and Ireland Competency Centre, Open Minds (www.openminds.co.uk or www.steeeye.co.uk) provide the expertise to allow these elements to be architected into a solution to meet the needs of the customer.

Supporting both Windows and Linux applications and software as variable as Exchange, SQL Server, MySQL, Oracle, to bespoke text based and many non-standard applications, we can say that we

have not yet come across an application that we cannot provide a recovery for. Many organisations, large and small, have used Open Minds to help them provide application recovery for their users by deploying the SteelEye LifeKeeper solution. Our customers range from the BBC, FTSE and NewStar to Budget Insurance and Photo-me booths.

Providing full server recovery solutions based on SteelEye's LifeKeeper, Open Minds can implement, support and provide training for LifeKeeper.

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