Use of VMware ESX streamlines Xansa's IT infrastructure and meets consolidation goals

Xansa results

- Saved several thousand pounds in hardware expenditures
- Improved server utilisation by 30 percent
- Faster server procurement; decreased time to acquire and build server from days to hours
- Reduced server build time from six hours to one hour
- Achieved an 8:1 server consolidation ratio

Why consolidate?

Since 2004, Xansa has been a keen user of VMware ESX Server within client development and test environments.

Recently, by fully utilising VMware's Capacity Planner and VMware ESX with P2V Assistant, Xansa has been able to consolidate 25 Wintel servers that provide key functionality for Xansa's internal infrastructure, in the first phase of a carefully planned project.

Due to the high visibility of the consolidation, due to the fact that Xansa are a VMware Authorised Consulting partner and VIP Enterprise partner, it was essential that the virtualised environments provide as good as, if not improved, service as the physical ones.

The consolidation project

Following training and certification of eleven members of Xansa's Technical Support Team in the UK and India, and training of one of the VCPs (VMWare Certified Professionals) in VMware Capacity Planner, the internal consolidation project was able to identify 25 Wintel servers for phase 1 of the virtualisation project. This included SQL databases, and Rational Clearcase and ClearQuest.

The team of VCPs successfully managed the migration of the Wintel servers using P2V. This also included ensuring that all platforms were carrying out full backups using Tivoli Storage Manager following the migration from physical to virtual servers.

The virtual machines were distributed across three ESX servers and connected to a SAN. This allows for use of VMotion to transparently migrate the virtual servers across the ESX servers for maintenance of the physical platforms. After migration and assessment of resource utilization on the virtual machines, the servers were made live, thus replacing 25 physical servers spanning various makes and models.

The results

Due to careful planning and solid execution, all environments worked excellently in the virtual machine environment on ESX Server. The end users noticed absolutely no change in availability, performance or service levels.

As requirements grow, Xansa's Technical Service Practice can implement new environments with a reduced cost to internal and external clients, and a reduced turnaround time.

Phase 1: The benefits for Xansa of deploying virtual infrastructure include:

Cost savings. Xansa reports savings of several thousand pounds per annum in hardware expenditures and support costs, plus additional savings from better utilization of space and resources.

Server consolidation. The Technical Services team is able to put an average of 8 virtual machines on each physical server for a 8:1 consolidation ratio. CPU utilization has also increased by 30 percent.

Time savings. With VMware software, the Technical Services team can respond quickly to requests for new servers. Instead of taking at least five days to order and set up a new physical server, they can deliver it in just a few hours.

Increased flexibility and scalability. Due to the ease of deploying new virtual machines, the team can respond more rapidly and flexibly to business requirements for new IT resources.

"The VMware software has increased our capabilities while allowing us to conserve our hardware. We are able to respond faster and we have a better control of our computing resources." **David Lloyd, CIO, Xansa**

Phase 2: What's next?

In order to build on the excellent results obtained from this work, Xansa are working on consolidating a further 60 Wintel servers. This will further reduce support costs, improve the global support offered within Xansa and also increase the inbuilt redundancy and resiliency of servers.

VMware ESX Server at Work

ESX Server on 2-CPU (Dual core) IBM x346 with 8GB RAM

Guest operating systems: Microsoft Windows 2003, 2000, Windows NT 4.0

Applications running in virtual machines include: DR Fileservers, SQL, Clearcase, IIS, Proxy servers, print servers and domain controllers

Network configurations: teamed gigabit Ethernet connections for all hosts