



Association of Teachers and Lecturers Learns Value of VMware Virtual Infrastructure

Organization Reduces Servers by 50 Percent with VMware Virtual Infrastructure

RESULTS

- Significantly reduced operational expenses and capital costs
- Achieved 2:1 server consolidation ratio
- Increased continuity of services through more efficient manageability of ESX servers due to independence from physical hardware
- Enabled low-cost disaster recovery capabilities
- Reduced time spent provisioning new servers from three weeks to one hour
- Improved performance and availability
- Simplified management and complexity

In Search of Robust Infrastructure and Peace of Mind

The Association of Teachers and Lecturers (ATL) is an independent, registered trade union and professional association representing approximately 160,000 teachers, lecturers and support staff in maintained and independent nurseries, schools, sixth form, tertiary and further education colleges in the UK. ATL exists to protect and improve the status of teachers, lecturers and other professionals involved in delivering education and to further their professional interests.

Ann Raimondo, head of information technology at ATL, is responsible for managing the IT infrastructure for the ever-expanding organization, including deploying equipment, IT support and training for its 150 employees. In addition to offices in London, Belfast and Cardiff, the ATL has a large volunteer base of remote workers throughout the UK who require IT systems and support. In her role, Raimondo was faced with the following challenges:

- Fifty percent of the available server storage space was not utilized
- Seventy-two percent of the storage space purchased was not being used
- Storage space could not be reallocated to other systems in need of additional storage
- Data was physically bound to a server, so if corruption occurred to the operating system or applications, the data on physical drives could not be reattached easily to another server and would need to be restored from backup

VMware Virtual Infrastructure Brings Business Continuity and Cost Savings

ATL needed a robust infrastructure that would allow increased efficiency, flexibility and responsiveness by effectively connecting resources to business needs. The organization also needed a solution that would allow for simple disaster recovery in the event of downtime. Raimondo and the team looked to fulfil these needs with a virtualization platform because of the technology's ability to reduce memory and hardware dependency while increasing cost savings and business continuity abilities. Specifically, ATL chose VMware virtual infrastructure because the product was already proven in the industry as delivering these benefits and making an immediate impact on technology and business processes.

"With VMware virtual infrastructure, we can now maximize the efficiency, flexibility and responsiveness of computing resources by consolidating our hardware footprint, reducing operational expenses and capital costs, and supporting an adaptive infrastructure," says Raimondo. "With the results we've already seen, we're very confident that VMware virtual infrastructure will continue to impact our organization and allow us to operate effectively and efficiently."

The implementation resulted in the following benefits:

- **Server consolidation.** ATL consolidated from 22 servers to 11, reducing hardware requirements and costs by 50 percent.

"With VMware virtual infrastructure, provisioning new services and changing existing resources dedicated to our software services is extremely manageable. We've also been able to increase the continuity of services dramatically by allowing our software to be independent from physical hardware, avoiding the constant developing, updating and testing of expensive disaster recovery plans."

*Ann Raimondo
Head of Information Technology, Association of Teachers and Lecturers*



VMWARE VIRTUAL INFRASTRUCTURE AT WORK

VMware ESX Server and VirtualCenter on HP ProLiant DL360 and DL380 G3 and G4 servers

- Guest operating system: Microsoft® Windows 2003
- Applications running in virtual machines include: Microsoft Exchange, Microsoft SQL, Oracle, ClickTracks, Live Communications and Surf Control

- **Flexibility and responsiveness.** Prior to bringing in ESX Server, deploying a new server would require approximately three weeks for sourcing, ordering and implementing hardware. With VMware virtual infrastructure, this same process takes less than one hour.
- **Lowered the cost of disaster recovery.** The hardware independence of VMware virtual infrastructure helps mitigate failures caused by hardware and enables recovery from a disaster in a matter of minutes, matching and improving on user downtime expectations.

Avoiding a Data Recovery Disaster

As a membership- and volunteer-based organization, the impact of downtime for ATL is especially devastating and can result in significant operational difficulties across the organization. ATL therefore wanted to ensure that it would receive the highest level of availability and disaster recovery — but at a low cost.

Traditional disaster recovery plans require recovery hardware to duplicate production hardware exactly, effectively doubling hardware requirements for protected applications. In contrast, VMware virtual infrastructure is hardware-independent, so any physical server can serve as a recovery target for any virtual machine. As a result, organizations can reduce the cost of hardware for business continuity significantly by repurposing underutilized servers for recovery targets and disaster recovery testing.

ATL is no stranger to disaster — in 2004 alone, it faced air cooling problems, UPS failures and roof leakages, as well as melted tape drives, the failure of 15 36GB drives and signs of corruption in the document file server and Exchange system.

“The year 2004 could only be described as a year of near disaster,” says Raimondo. “We felt we were on borrowed time and pushing our luck. To ensure

that we didn't go through another year like that, we embarked on extensive research and planning to design a new, robust infrastructure. That VMware virtual infrastructure would provide low-cost and advanced disaster recovery capabilities was crucial and has since ensured that we are not vulnerable to disasters of any nature.”

Shortly after implementation, VMware virtual infrastructure proved itself. On July 19, 2005, a power surge hit the ATL, and it lost all power to its headquarters. ATL's old UPS systems did not give the organization sufficient time to shut down the systems cleanly, and member service and support was suffering as a result. “The impact on our organization was serious,” says Raimondo.

ATL's IT team stayed late into the night hoping power would be restored so they could assess the damage and start the recovery process. When power was finally restored the next morning, ATL's membership system — the organization's most critical application — was restored within 20 minutes. As the membership system had already been migrated onto a virtual platform, ATL was able to power on the ESX Server host system, do a file system integrity check and power on the virtual machine. In contrast, ATL's Exchange Server was not running in VMware virtual infrastructure, so it required numerous installations, configurations and restoration processes, which resulted in an entire day of system downtime along with dedicated resources from several key staff members.

“As head of IT, it is imperative that I choose to implement cost-effective and resilient technology solutions to ensure our organization is not only making the best use of resources available, but that we are also providing our members and volunteers with quality service in order to retain and recruit members,” says Raimondo. “Perhaps the most significant benefit for me personally, however, is the ability to sleep well knowing our data and applications are in safe hands with VMware virtual infrastructure.”

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