



KEY HIGHLIGHTS

INDUSTRY: TECHNOLOGY

Borland
THE OPEN ALM COMPANY

CHALLENGE

Deploy infrastructure that meets business demand for rapid, stringent software testing and development while reducing costs

SOLUTION

VMware® Infrastructure enables multiple virtual machines to run on a single physical server, enabling the business to test applications concurrently across a range of operating system and database environments

VMWARE VIRTUAL INFRASTRUCTURE AT WORK

VMware Infrastructure 3.5 Enterprise, featuring:

- ESX Server 3.5.2 and 3.0.1
- VirtualCenter 2.5.2
- Lab Manager 2.5.1

DEPLOYMENT ENVIRONMENT

- ESX Server running on one IBM System x3950 server, with four dual-core Intel Xeon processors, 32GB RAM and 700GB local storage for 160 virtual images
- Virtual Center running on Dell PowerEdge 2950 server with four dual-core Intel Xeon processors, 4GB RAM and 250GB hard disk
- IBM System Storage DS4700 with 1.7TB of storage
- Guest operating systems: Microsoft Windows 2003, Windows 2000, Windows XP, Windows Vista, Sun Solaris, Red Hat Enterprise Linux
- Applications running in virtual machines include: Borland® Open ALM product suite, SilkCentral® Test Manager™, SilkTest®, SilkPerformer®, TeamInspector®, StarTeam®, CaliberRM®, Tempo®

“VMware virtualization has enabled us to quickly and accurately test different versions of our products in multiple environments without acquiring new hardware.”

Tauseef Khan, Senior Director of Quality Assurance, Borland

Borland

Founded in 1983, Borland is a United States-headquartered vendor of platform-independent software solutions. With more than 1,300 employees and operations in 20 countries, Borland specializes in Open Application Lifecycle Management (ALM) solutions. Borland's Open ALM platform provides process-driven integration across all lifecycle assets, activities and tools so its customers can collaborate, share information and track the entire software development lifecycle from planning to delivery. Borland's Asia-Pacific headquarters incorporates an offshore Enterprise Quality Center that undertakes system level testing of Borland products.

To do this, Borland had to test several product versions in multiple environments using physical servers. “Some products had to be tested up to 20 times,” said Tauseef Khan, Senior Director of Quality Assurance. “Our previous physical infrastructure meant we had to test progressively rather than concurrently, which extended the time before a product could be released.” In mid-2006, Borland evaluated ways of improving its testing, including co-locating different operating environments on a single server and hard disk partitioning. Following preliminary testing, the vendor provisioned 20 virtual servers. Borland now operates 160 virtual machines on three servers.

Results

- Reduced physical asset costs mean test and development is now 70% cheaper to run
- Operating systems are operational in less than 20 minutes
- Slashed server provisioning time frame from weeks to 30 minutes. This was achieved by the native integration between Borland's SilkCentral® Test Manager™ and VMware Lab Manager, which automated the provisioning of infrastructure necessary to test conditions that mimic the final deployment environment
- Product and database versions are available for use across geographical regions without OS and software reconfiguration
- Integration and configuration is completed in under 10 minutes
- Image clones can be recreated in under 30 minutes on average
- Bug verification can be completed in less than 10 minutes

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