



“How has VMware Infrastructure 3 benefited us? You name it: lower costs, easier maintenance, increased stability... I can’t think of an area where it hasn’t benefited us.”

— Lowell Marshall
Project Manager, Office of
Information Technology Shared
Services, FDA

KEY HIGHLIGHTS

Challenge

Reduce time and costs associated with maintaining an aging IT infrastructure

Solution

VMware Infrastructure 3 provides an easily administered IT infrastructure that increases reliability while reducing costs.

VMware at Work

VMware Infrastructure 3 Enterprise (have since upgraded to 3.5), featuring:

- ESX Server 3 with VMFS
- VirtualCenter 2
- VMotion
- Distributed Resource Scheduler (DRS)
- High Availability (HA)
- Update Manager
- Guided Consolidation
- VMware Converter

Deployment environment

- Three ESX Server clusters running on DL380s, DL580s, and DL585s. Storage: EVA 5000, XP 1024, and XP 12000.
- Guest operating systems: Windows Server 2003, Windows 2000, Windows NT, Linux RedHat
- Applications: NT Domain Controllers, Documentum, Oracle application and database, MS Exchange, File Servers, Print Servers, IIS/Tomcat/Apache, SQL, PNC (Prior Notice Center) application, MS Cluster Services, McAfee ePolicy, NetIQ, DHCP, Hyperion, Enterprise Search, Input Excel, eRoom, Tririga, Electronic Submission Gateway, PVWorks, Checkpoint, etc.

Food and Drug Administration

The Food and Drug Administration (FDA) is responsible for protecting the public health by assuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, and the United States food supply.

Within the FDA, the Office of Information Technology Shared Services (OITSS) was seeking to increase the reliability of the agency’s IT assets and reduce operations and maintenance costs. “We were expending a large amount of resources on an aging IT infrastructure,” says Lowell Marshall, a project manager within OITSS. “VMware Infrastructure 3 seemed like a good solution to help us address some of the challenges those servers presented us.”

Implemented in a series of phases, VMware Infrastructure 3 allowed the FDA to virtualize and consolidate its aging servers and replace them with virtual machines. “We currently have 190 virtual machines running on three ESX Server clusters with plans to add 200+ more by the end of the year. In addition, we are planning on deploying a fourth cluster as resource needs dictate – probably later this year or early next year,” says Marshall. “We feel 100 percent confident in virtualizing so many of our applications—including our mission critical applications—because of the robust features that are built into VMware Infrastructure 3, such as High Availability (HA) and Distributed Resource Scheduler (DRS). The reliability has really been outstanding.”

Results

- Reduce call center tickets by 90 percent. “The number of server-related call center issues we experience has gone way down since we implemented VMware Infrastructure 3,” says Marshall. “With the increased reliability that VMware Infrastructure 3 brings, we’ve reduced the number of server-related tickets by somewhere in the neighborhood of 90 percent.”
- Save thousands of dollars per year in hardware costs. “Maintenance costs for servers get increasingly expensive as they age,” says Marshall. “We’re saving three to four thousand dollars per year for each aging server that we’ve been able to virtualize.”
- Increase server utilization ten fold. “Our server utilization rate used to hover around the five-ten percent mark,” says Marshall. “Now, our server utilization rate is closer to 55-60 percent, thanks to VMware technology.”

