

# Large Government Research Agency

*“We now spend more time asking ourselves ‘What do our scientists need to be more effective at their jobs?’ and less time worrying about keeping our infrastructure up and running.”*

— Solutions Architect,  
Large Government Research Agency

## KEY HIGHLIGHTS

### Challenge

Move mission-critical systems off of aging hardware and consolidate IT environment

### Solution

VMware technology creates a virtual platform that allows more efficient delivery of IT services

### VMware at Work

VMware Infrastructure 3 Enterprise, featuring:

- VMware ESX® Server 3
- VMware vStorage VMFS
- VMware VirtualCenter 2
- VMware vMotion™
- VMware Distributed Resource Scheduler (DRS)
- VMware High Availability (HA)

### Deployment environment

- HP Proliant DL585 servers with HP EVA 8000 SAN
- Guest operating systems: Windows 2000, Windows 2003, Windows XP, Windows Vista, Red Hat Enterprise Linux, Sun Solaris 10
- Virtualized pre-production applications: Microsoft Exchange
- Virtualized production applications: SQL, Sharepoint, Lotus Notes, Domino, Citrix, Web servers, IBM WebSphere, Microsoft Project, and customer facing applications

The Network and Infrastructure Engineering Division at a large government research agency is responsible for providing core IT services for the agency as a whole. “Within our organization, we had roughly 300 physical servers and we were starting to run into the proverbial brick wall as far as power and cooling,” says a solutions architect within the division. “More importantly, we wanted to move mission-critical applications off of aging hardware.”

After a due diligence review of available solutions, the agency selected VMware Infrastructure 3 to virtualize its IT environment. The agency decommissioned 105 physical servers and consolidated its server environment onto 13 VMware ESX hypervisors. “With the infrastructure we have in place now, we anticipate being able to host 450 virtual machines on our 13 hypervisors, so we have room to grow,” says the solutions architect.

This decision has helped to create a more stable and manageable IT environment for the agency. “Probably the biggest benefit was the ability to virtualize those mission-critical applications and move them off of legacy systems and onto a supported platform,” says the solutions architect.

## Results

- Achieve ROI in nine months “We had an initial ROI projection of two years for our VMware investment, but we achieved it in nine months,” says the solutions architect.
- Save 873,000 kilowatt hours per year
- Save \$639,000 in energy costs per year
- Avoid \$1.4 million in hardware costs

