



KEY HIGHLIGHTS

INDUSTRY: TELECOMMUNICATION

**CHALLENGE**

Tellabs wanted to curb its server sprawl while increasing uptime and easing the administrative burden of application testing.

SOLUTION

In 2004, Tellabs implemented VMware software, and two years later it upgraded to VMware Infrastructure 3, to virtualize its servers.

VMWARE AT WORK

VMware Infrastructure 3 Enterprise, featuring:

- ESX Server 3 with VMFS
- VirtualCenter 2
- VMotion
- Distributed Resource Scheduler (DRS)
- High Availability (HA)

DEPLOYMENT ENVIRONMENT

- ESX Server and VirtualCenter on servers with various-sized processors. "The sweet spot seems to be the four-processor dual core/quad core systems with 32 GB of RAM."
- EMC Clariion Cx700 SAN
- Guest operating systems: Windows Server 2003, Windows 2000 Server
- Applications: Citrix, Documentum, Mail Flow Central, Veritas Replication Exec, Blackberry Enterprise Server, Pinnacle, WinFile Servers, Active Directory domain controllers, IIS Web servers, Rational ProjectConsole, SAP NetWeaver, Agile, and Kanisa/Knova

"In 2006, our CIO presented to our entire company that virtualization was a strategic initiative. Time and again, it has proved its worth. We've seen the new VMware High Availability, for instance, kick in several times and it's worked flawlessly. So management finally said, 'Let's make it a strategy,' and now everyone looks at virtualization and VMware first."

David Wollenweber, Technical Architect, Tellabs

Tellabs

Tellabs advances telecommunications networks to meet the evolving needs of users. Solutions from Tellabs enable service providers to deliver high-quality voice, video and data services over wireline and wireless networks around the world. Based in Naperville, Illinois, the company has about 3,800 employees worldwide. Its IT department supports the entire company.

In 2004, recalls Technical Architect David Wollenweber, "We had a plethora of servers in our data center." Facing constraints on licensing, data center space, power costs and cooling costs, "we needed a solution that would halt server sprawl." Tellabs compared VMware ESX Server with other products on the market and found that ESX Server could best meet its enterprise uptime requirements.

Results

- Deployed more than 300 virtual machines globally, in production or production-like environments
- Realized tangible savings in hardware acquisition costs
- Increased average processor utilization from 5–10 percent to 50 percent. Wollenweber says, "A system can run 80–90 percent of the CPU utilization with no adverse effects on performance."
- Achieved an 8.33:1 server consolidation ratio. "On one single box, we've run more than 40 virtual machines with no problems."
- Eased virtual machine deployment for application testing. "When testing is done, you wipe everything away and all your resources are back. Other than a few minutes to deploy the machine, it didn't cost you anything."