"Deploying VMware has enabled us to support the expansion plan driven by Total France that required all affiliates to adhere to the same standards. During this program, we had to deploy additional servers and VMware virtualization enabled us to do so while saving Rs 10 lakh in hardware costs and cutting power and cooling costs by 10 percent."

— George Matthew,
  Senior Manager Systems,
  Total Oil India Pvt Ltd

KEY HIGHLIGHTS

Challenge
Expanding the Total business in India drove the need for additional applications and servers, but datacenter constraints limited the ability to expand hardware resources.

Solution
Implementing VMware enabled Total Oil India to deploy business-critical applications in individual virtual machines, several of which could run on one physical server.

VMWare at Work
VMware Infrastructure 3, featuring:
• ESX 3
• VMotion
• Distributed Resource Scheduler (DRS)
• High Availability (HA)
VMware vCenter Server

Deployment environment
• ESX on one Dell PowerEdge 1950 server with two dual-core 2.5GHz Intel Xeon processors and 16GB RAM
• ESX on two IBM System x3650 servers, each with two quad-core 3GHz Intel Xeon processors and 8GB RAM
• EMC CLARiiON CX4 networked storage system with 2TB capacity
• Guest operating systems: Microsoft Windows Server 2003
• Virtualized production applications: Lotus Notes email, Microsoft SharePoint Server, depot invoicing and inventory management system, various other .NET and SQL Server business-critical applications.

Total Oil

Headquartered in Mumbai since its establishment in 1993, Total Oil India Pvt. Ltd. operates liquid petroleum gas, lubricant and special fluids businesses and a bitumen products joint venture with Indian business Vinergy. The company runs three datacenters—one for each of its business lines—and is a subsidiary of Total, the fifth-largest publicly-traded international oil and gas company and a sizeable chemicals manufacturer. It employs about 450 staff across its operations in India.

In 2006, Total issued a worldwide IT architecture standard stipulating one application per server across its technology operations. This would help limit the business impact of hardware failure and minimize the risk of conflict between multiple applications running on a single server. This presented Total Oil India with a challenge. The Mumbai datacenter supporting its lubricants business and providing shared services to the joint venture ran 12 applications on four servers and only had space for six machines at most. "Had we been required to deploy a physical infrastructure, we would have had to find additional datacenter real estate and procure another five servers at Rs 2 lakh per machine," said George Matthew, Senior Manager Systems, Total Oil India Pvt. Ltd. The existing infrastructure also had no redundancy or backup capabilities.

To resolve this issue, the organization turned to long-standing technology partner Pentagon System and Services Pvt. Ltd. Based on Pentagon's recommendations, Total Oil India chose to implement a virtualized infrastructure based on VMware® technologies in the Mumbai datacenter and a second facility at Total Oil's major lubricant manufacturing plant in Navi Mumbai. "We selected VMware Infrastructure 3 as it was the market leader and Pentagon—the vendor that Total Oil India had used regularly to deliver technology systems—completed the implementation and testing over about one month in 2007," said Matthew. The organization is now running business-critical applications using 14 virtual machines on three servers in the Mumbai datacenter, including a web-based invoicing and inventory management system for depots, Lotus Notes email and Microsoft SharePoint Server collaboration software. The Mumbai datacenter and the second site operate a dual disaster recovery arrangement to ensure business continuity.

Deploying VMware has enabled Total Oil India's information technology unit to support the growth of the business including new joint ventures. The virtualized infrastructure has enabled Total Oil India to dedicate more computing resources to its most critical applications to ensure performance and availability.

Results

• Reduced power and cooling costs by 10%

• Eliminated server procurement costs of Rs 10 lakh

• Enabled new server to be provisioned in minutes rather than wait up to three weeks

• Cut IT administrator's management time from two days per week to four hours

CUSTOMER SNAPSHOT