



# Engen Pumps More out of Existing Resources with VMware Virtual Infrastructure

VMware ESX Server, VirtualCenter and VMotion Enable Centralized Management of Remote Sites and Facilitate Server Consolidation



## KEY HIGHLIGHTS

INDUSTRY: OIL & GAS

### RESULTS

- Reduced maintenance costs by 50 percent
- Achieved server consolidation ratio of 3:1
- Reduced server provisioning time from seven hours to 15 minutes
- Increased infrastructure flexibility and ability to respond to changing business needs
- Decreased downtime using VMotion, keeping services running during hardware servicing
- Avoided costly support visits to remote sites
- Enabled management of six remote offices

*“We used to face a significant challenge in the delivery of new systems to remote offices, due to a lack of infrastructure flexibility, remote management tools and local IT staff. Now that we have virtualized our systems on VMware virtual infrastructure, we can manage and deploy servers to six remote locations from a central point, whilst streamlining the provisioning of new services and halving maintenance costs.”*

Nick Lain, Systems Engineer, Engen

## Engen Strives for Increased Cost Effectiveness

Engen is one of the world’s most advanced fuel technology companies and has over a century of experience in the African oil trade. Its core business entails refining crude oil, marketing and retailing petroleum products and providing consumer convenience services through its retail network. In South Africa, Engen has approximately 1,250 service stations and more than 450 Quickshops. The company owns and manages a 125,000 barrel/day crude oil refinery and a state-of-the-art lubricants blending plant. In 2005, Engen’s turnover was over \$4.4billion.

Following several years of growth, Engen experienced a rapid increase in the number of servers it had to deploy, manage and maintain. This situation was causing issues around escalating support and maintenance costs, a lack of space and low server utilization. As a result, a project was initiated to curb server growth and streamline IT management processes. Led by Mike Cranfield, project manager at Engen, the project aimed to:

- Contain server growth
- Reduce support and maintenance costs
- Streamline IT administration processes
- Avoid slow server deployments from holding back business progress

Engen is a distributed organization with 2,500 users and a central office that is responsible for six remote sites, which have no IT support staff. VMware ESX Server was implemented at each of the remote offices to run a wide variety of disparate applications. With VMware VirtualCenter and VMware VMotion technology installed at the central office, IT staff can remotely manage each distributed IT environment, without having to incur costly and time-consuming travel to each office.

“We used to face a significant challenge in the delivery of new systems to remote offices, due to a lack of infrastructure flexibility, remote management tools and local IT staff,” explains Nick Lain, systems engineer at Engen. “Now that we have virtualized our systems on VMware virtual infrastructure, we can manage and deploy servers to six remote locations from a central point, whilst streamlining the provisioning of new services and halving maintenance costs.”

The main benefits of moving to a virtual infrastructure include:

- **Reduced maintenance costs by 50 percent.** The maintenance of physical servers represents a significant proportion of IT budgets. By moving to a virtual infrastructure on a blade server, Engen has slashed its maintenance costs and freed up budget for more value-add services.
- **Server consolidation of at least three to one.** Engen no longer requires a dedicated server for each application, which has not only curbed the growth of its server estate, but also reduced the number of required servers threefold.
- **Deployment of new servers reduced from seven hours to 15 minutes.** Deploying a new server using VMware is simply a matter of copying a few files or using a template—a far more straightforward and rapid process than building a server from scratch that enables the IT team be far more responsive to changing business needs.
- **Improved IT management processes.** Using VMware VMotion, the IT team is able move virtual machines to another physical server and take hardware offline for maintenance and upgrades without any impact to the services running on virtual machines. Using VMware VirtualCenter, server RAM and CPU can be dynamically reconfigured as required to provide users with optimum service.

## Pioneering Virtualization in South Africa

Engen strives for innovation and excellence throughout its business, and IT is no exception.

“As far as we know, we were one of the first organizations in South Africa to truly embrace the concept of virtualization and build an IT strategy around it,” comments Cranfield. “It’s been a steep learning curve, but the software is remarkably easy to pick up and work with and VMware virtual infrastructure has already proved its return on investment.”

Looking to the future, Engen intends to expand its use of VMware virtual infrastructure to drive further cost savings and efficiencies throughout the organization.

Furthermore, as the VMware channel network has expanded in South Africa, Engen is now able to benefit from increased local support and expertise.

### VMWARE ESX SERVER AT WORK

- HP Proliant BL20p G2 and G3 blade servers
- EMC Clariion 300 SAN
- EMC Symmetrix DMX 3000 SAN
- VMware ESX Server
- VMware VMotion
- VMware VirtualCenter
- Guest operating systems: Windows® 2003 and Windows 2000
- Applications running in virtual machines: Microsoft Exchange, SQL, Unicenter, Citrix Metaframe Presentation Server, SAP HR and SEM, Blackberry and SMS

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