

Tullow Pakistan (Developments) Ltd

PROFILE



Industry

Energy/Utilities

Corporate Headquarters

London, England

Employees

1,000-plus globally; 20 in Pakistan

Website

www.tulloil.com

THE NUMBERS

- nine virtual machines
- two physical servers

IN BRIEF

Objective

Replace 25 ageing physical servers with a cost-effective, dynamic datacenter infrastructure

Solution

VMware server virtualization software enabled Tullow Pakistan (Developments) Ltd to cut costs in its Islamabad datacenter by 50 percent, reduce power consumption, provision new virtual servers in minutes to support test and development requirements, and run production applications

Business Impact

- Virtualized production servers at a ratio of 25:2
- Reduced infrastructure costs at its Islamabad datacenter by around 50 percent
- Cut server fleet energy consumption from 12,500 watts to 950 watts
- Enabled the company to conserve power in a country where electricity is often in short supply
- Reduced server deployment times from four to five hours to five to 10 minutes
- Improved application performance and added additional memory and CPU power on the fly without having to switch off a server, which eliminated downtime

Tullow Pakistan (Developments) Ltd Cuts Infrastructure Costs by 50 Percent, Reduces Server Deployment Time

“We had 25 physical servers, which cost up to US\$5,000 each. Now we are running two servers at about US\$8,500 each with storage and VMware software licenses for about half the previous cost.”

— Faisal Niaz, Information Systems Manager, Tullow Pakistan (Developments) Ltd

Tullow Oil plc is a global independent oil and gas company with more than 85 licenses in 22 countries. The company established Tullow Pakistan (Developments) Ltd in 1991 and now runs development and exploration projects in several locations.

Faisal Niaz is Tullow Pakistan (Developments) Ltd's only Information Systems Manager. Until 2010, Niaz was managing around 25 ageing physical servers at the company's Islamabad datacenter with warranties that were about to run out. The company recognized the need to refresh and consolidate its server infrastructure, save on power and cooling costs, and establish a platform for future growth.

“These ageing systems were time-consuming, costly and difficult for me to manage,” said Niaz. “We quickly realized that server virtualization technology and a new storage system would help reduce costs and support the organization's expansion.”

Datacenter Costs Reduced

In March 2010, Tullow Pakistan (Developments) Ltd engaged VMware® partner New Horizon to implement a virtual server environment based on VMware vSphere. The virtualization software runs on two Dell PowerEdge R815 servers connected to an EMC CLARiiON CX4 storage system.

Tullow Pakistan (Developments) Ltd has created nine virtual machines on these physical servers to run Microsoft WSUS patch management software; Blackberry Enterprise Server Express; a messaging application and document management systems for storing maps and documents used in oil and gas exploration; a network monitoring application; and fax server software.

The new virtual server infrastructure has helped Tullow Pakistan (Developments) Ltd reduce infrastructure costs in its Islamabad datacenter by 50 percent.

“Previously, our racks were full of physical servers and there was no space for additional hardware,” said Niaz. “We had 25 physical servers, which cost up to US\$5,000 each. Now we are running two servers at about US\$8,500 each, plus storage and VMware software licenses for about half the previous cost.”

Server virtualization has freed up space in Tullow Pakistan (Developments) Ltd's datacenter and helped reduce power consumption costs. Previously, the organization's 25 physical servers consumed about 12,500 watts, while the two new Dell machines consume about 950 watts.

“Electricity is often in short supply across Pakistan so it is important that we conserve power as much as possible,” said Niaz. “Server virtualization technology enables us to do this.”

“VMware vMotion is also particularly useful when I need to move running virtual machines from one physical server to another with no impact on end users.”

Faisal Niaz, Information Systems Manager,
Tullow Pakistan (Developments) Ltd

Virtual Server Creation and Migration Completed Within Minutes

Niaz uses VMware virtualization to create virtual servers within five to 10 minutes—a sharp reduction from the four to five hours required previously to configure physical systems. “I can create at least 15 virtual machines in just a few hours, which frees me up to perform other tasks,” he said.

He also uses VMware vMotion™ to move virtual machines from one physical server to another within minutes. Virtual servers are usually moved from one server to another if the organization is doing server maintenance during business hours or if one of its physical servers is failing, to ensure there is no disruption to the business.

“VMware vMotion is also particularly useful when I need to move running virtual machines from one physical server to another with no impact on end users,” said Niaz. “vMotion keeps our environment up and running, giving us unprecedented flexibility and availability to meet the increasing demands of our business.”

Improving Application Performance on the Fly

VMware vSphere™ enables Niaz to improve application performance without having to restart a server, ensuring user productivity is not interrupted. Previously, he would have to switch off a server for more than an hour if he wanted to add memory or make other modifications.

“It often took an additional 30 minutes to restart application services for users,” said Niaz. “Now, if I want to increase CPU performance or add memory, I can do so in five to 10 seconds. VMware gives me the confidence that I can eliminate any unnecessary downtime, which often affects user productivity and ultimately our profitability.”

Efficient Storage Utilization

The EMC CLARiiON CX4 storage system with 18TB of storage provides Tullow Pakistan (Developments) Ltd with the capacity to quickly and efficiently create more virtual machines as the organization adds new applications in the future. “At the moment, our server and storage utilization is about 15 percent, so there is plenty of room to grow,” said Niaz.

IMPLEMENTATION OVERVIEW		
<p>VMware Products:</p> <ul style="list-style-type: none"> VMware ESXi vMotion High Availability VMware vCenter Server 	<p>Applications:</p> <ul style="list-style-type: none"> Microsoft WSUS patch management Blackberry Enterprise Server Express Messaging application Document management systems Fax server software Network monitoring application 	<p>Platform:</p> <ul style="list-style-type: none"> Dell PowerEdge R815 servers, each with two eight core AMD Opteron processors and 64GB of RAM EMC CLARiiON CX4 Model 120 with 18TB of capacity Microsoft Windows Server 2003 and 2008