



KEY HIGHLIGHTS

INDUSTRY: SHIPPING

**CHALLENGE**

Enable protection and rapid retrieval of data in the event of an outage.

SOLUTION

VMware Virtualization Infrastructure ensures replicated data can be restored quickly while reducing cost and environmental footprint.

VMWARE AT WORK

- VMware Infrastructure 3 Enterprise, featuring:
 - o ESX Server 3.0.2
 - o VMotion
 - o Distributed Resource Scheduler (DRS)
 - o High Availability (HA)
 - o VirtualCenter

DEPLOYMENT ENVIRONMENT

- ESX Server running on three Dell PowerEdge 2850 servers with dual 3.2 GHz Intel Xeon processors and 8GB RAM
- ESX Server running on five Dell PowerEdge 2950 servers with dual quad-core 2.66 GHz Intel Xeon processors and 16GB RAM
- Two mirrored EMC CLARiON CX-500s
- One EMC CLARiON CX3-20
- Guest operating systems: Microsoft Windows 2003 32/64-bit, Microsoft Windows XP, CentOS Linux, BSD, pfSense firewall appliance
- Virtualized Production Applications: Microsoft Exchange Server 2003, Microsoft SQL Server, Microsoft Active Directory, SPARCS port terminal management system

“Deploying VMware virtualization infrastructure has enabled us to enhance our disaster recovery and redundancy capabilities and ensure we can continue to support the business in the event of an outage.”

Darren Wiseman, Manager, IT Operations
IT Group, Ports of Auckland

Ports of Auckland

Ports of Auckland owns and operates the international Port of Auckland, the regional Port of Onehunga on the west coast, and two other inland ports at Wiri and East Tamaki, South Auckland.

In 2005, the organization moved to upgrade its disaster recovery capability as its local tape backup and ageing server fleet could no longer meet business requirements.

“Just after I started, our Microsoft Exchange Server environment went down for an hour,” said Darren Wiseman, Manager, IT Operations, Ports of Auckland. “This meant our stevedores could not receive emails that told them what containers to leave, unload or move around on incoming ships. This caused them some concern at the time and reinforced that delays are potentially costly to us and our shipping line customers that rely heavily on timely ship turnaround.”

Ports of Auckland turned to VMware virtualization technologies to support its disaster recovery upgrade and infrastructure refresh. As a result, the organization replaced 40 servers across its two data centers with a virtual server environment based on VMware Infrastructure 3 Enterprise. The new infrastructure comprises eight Dell servers running 45 virtual machines and two mirrored EMC networked storage systems.

“It used to take at least four hours to restore data using tape on a server in our backup center,” said Wiseman. “The information technology team is now targeting full restore in 15 minutes.

“In addition, if a VMware host server fails, we can remove it from our environment without affecting service to the business,” he added.

Results

- Improved restoration time from minimum four hours to an IT team target of 15 minutes and business unit expectation of 30 minutes
- Consolidated physical server numbers from 40 to 12, a server consolidation ratio of 3:1
- Supported growth with only 37% of capacity in primary data center and 54% in secondary facility currently used
- Cut rebooting time from five minutes for a physical server to less than a minute for a virtual machine
- Microsoft patches can be applied to individual systems on a flexible schedule, minimizing planned downtime and impact on users