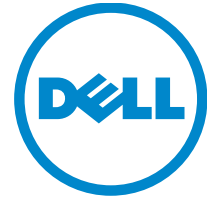


MSC Brazil saves 70% in power costs and provisions new offices in 1 day with Dell systems and Intel processor technology



- Backup/Recovery/Archiving
- Consolidation
- Green Computing
- Power & Cooling
- Virtualization



"Clients would be very wary of a shipping company that takes a day off. The protection that our DR site provides us is critical."

Andre Simha, Chief Information Officer, MSC Mediterranean Shipping Company

Customer Profile

Company:	MSC Brazil
Industry:	Transportation
Country:	Brazil
Web:	www.mscbrazil.com

Business Need

MSC Mediterranean Shipping Company do Brazil (MSC Brazil) needed a new data center to support the company's annual growth and saw the opportunity to build a new data center from scratch when it moved into its new Brazilian headquarters building.

Solution

The company chose its long-time partner Dell to design and build a data center with Dell™ PowerEdge™ servers using Intel® processor technology and virtualized with Citrix XenServer and VMware Infrastructure 3. Dell/EMC SANs provide a robust data protection and disaster recovery (DR) solution with EMC RecoverPoint software replicating data synchronously between primary and secondary sites.



Benefits

- 3-day move into new data center and DR facility
- 30-minute creation of new servers allows provisioning of new services or offices in 1 day vs. 45-60 days
- Zero recovery point objective with synchronous replication of data
- \$150,000 savings in server costs by not buying proprietary servers
- 50% of servers virtualized
- 70% savings in power

Growth in Brazil's export-oriented economy has been good news for shipping companies such as MSC Mediterranean Shipping Company do Brazil (MSC Brazil).

"MSC Brazil is saving 70 percent off the power bill, which helps to reduce the carbon footprint."

Andre Simha, Chief Information Officer, MSC Mediterranean Shipping Company

MSC Mediterranean Shipping Company S.A. of Geneva operates one of the largest fleets of container ships in the world. During the last five years, MSC Brazil has become one of the largest agency offices involved in the processing of shipments of Brazilian exports and imports.

But the expansion of MSC Brazil's business has put a strain on the company's IT infrastructure, which has witnessed a growth in data from 2 to approximately 15 terabytes in the last 2 years alone." MSC Brazil has never had a proper data center with access control and temperature control, and didn't have any kind of control in the past, as they were growing so fast," says Andre Simha, Chief Information Officer, MSC Mediterranean Shipping Company.

That changed when MSC moved to its Brazilian headquarters building in the port city of Santos adjacent to São Paulo. This time the IT department got its own data center with access controls, cooling, raised floors and all-new server and storage technology from Dell.

Saving \$150,000 In Server Costs

A long-time partner of MSC Brazil, Dell was involved from the beginning of the new data center project. Dell performed the virtualization assessment, data consolidation, server virtualization and data replication configuration in three days. A wide range of Dell professionals participated, from commercial and technical departments to executives from Brazilian and Latin America Services. Dell partner TripleS performed the configuration of the VMware ESX servers.

Application and server virtualization played a key role in the new data center with Citrix XenServer and VMware ESXi 3.5 installed at the factory on Dell PowerEdge R900 servers with Intel Xeon 7400 series processors. "MSC

Technology at Work

Services

Dell™ Consulting Services
– Virtualization Readiness Assessment

Design and Implementation Services

Dell Support Services

Hardware

Dell PowerEdge™ R900 servers with Intel® Xeon® 7400 series processors

Dell PowerEdge 2950 servers with Intel Xeon processors

Dell/EMC CX4-120, CX3-20 SANs

Software

Citrix® XenServer

EMC RecoverPoint data protection software

Microsoft® Exchange Server 2003

Microsoft Office SharePoint® Server 2007

Microsoft SQL Server® 2008 database

Symantec™ Backup Exec™

Symantec Enterprise Vault™

VMware® Infrastructure 3

Brazil virtualized about 50 percent of its servers on the Dell PowerEdge servers," says Simha. The Intel Xeon 7400 series processors strengthen the capabilities of virtual environments by supporting VMware VMotion for live migration of data from one server to another with no interruption of the application, enabling load-balancing in real time.

MSC Brazil had a budget for two proprietary servers, but it put the funds into Dell PowerEdge R900s instead. "They saved \$150,000 over the cost of the other vendor's servers," says Simha. MSC Brazil also uses Dell PowerEdge 2950 servers with Intel Xeon processors for Microsoft Exchange servers, databases and backups.

75 Virtual Servers Run The Business

MSC Brazil runs 25 virtual machines on 3 Dell PowerEdge R900 servers to support its Citrix XenApp environment on the XenServer platform, which delivers applications to business users virtually over the Web. The company uses flexible computing desktops for all its workplace applications.

"Software virtualization enables MSC Brazil to confine its concerns to servers in the data center and not desktops spread throughout the company," says Simha. "The problems are addressed here centrally, which saves time and money."

Six PowerEdge R900 servers support 50 VMware ESX 3.5 virtual servers for most of MSC Brazil's business systems, including Microsoft Active Directory, Microsoft Office SharePoint Server, the corporate intranet, Microsoft IIS and antivirus software. Two clustered PowerEdge R900 servers run Microsoft SQL Server 2008 database, and two R900 servers support the company's ERP application.

2-Hour Recovery Time Objective

MSC Brazil moved all its old servers and Dell/EMC CX3-20 SANs to a disaster recovery (DR) site in São Paulo. Dell implemented two Dell/EMC CX4-120 SANs at the Santos site. The two sites are mirrored by EMC RecoverPoint software, which synchronously replicates data from the primary site to the secondary site. The company synchronizes its entire environment with the exception of Microsoft Exchange Server and Microsoft SQL Server. At the primary site, the VMware images are stored on the Dell/EMC SAN and accessed by the R900s.

The company performs backups using Symantec Backup Exec software, running on a virtual server. MSC Brazil archives its email using Symantec Enterprise Vault software, which is also virtualized. The plan is to move data that is not critical off the Dell/EMC SAN to lower-cost SATA disk.

"MSC Brazil never had a disaster recovery capability in Brazil before the Dell and EMC solution," says Simha. "When the project is finished, they will be able to fail over servers and restore the SAN environment in São Paulo, which gives them a production environment very quickly. Previously, this would have taken more than 24 hours." Since data is replicated synchronously, recovery point objective is zero.

70% Savings In Power

MSC Brazil does business 24x7, and its customers depend upon data that the company puts on the Web to conduct their business. "A day of downtime would cost MSC Brazil as much money as this whole data center cost," says Simha. "But the major problem would be damage to their reputation and loss of market share. Clients would be very

"We rely on Dell for everything from desktops and laptops to servers and storage. The quality of their technology and their support consistently exceed our expectations."

Andre Simha, Chief Information Officer, MSC Mediterranean Shipping Company

wary of a shipping company that takes a day off. The protection that our DR site provides us is critical.”

Dell Support Service provides mission-critical 24x7 on-site support with a six-hour response time, reassuring MSC Brazil that it will be able to fulfill its responsibility to its clients.

The benefits brought about from virtualization also have an impact on MSC Brazil’s operating costs. “MSC Brazil is saving 70 percent off the power bill, which helps to reduce the carbon footprint,” says Simha. “Even more important, Dell has helped MSC Brazil to improve response time. They can create virtual servers in less than 30 minutes, thanks to Dell and Citrix.

Previously it took 45 to 60 days to get a new physical server and provision it. This means they can open a new office faster than it takes to sign a rental contract. This is the way they take advantage of market opportunities, and have already opened five new offices in Brazil since they started this project.”

Simha is satisfied that the new data center will provide the leading-edge technology that MSC Brazil needs in order to compete successfully for the next ten years. “‘Less is more’ is a good model, and we think it’s sustainable,” he says. “I’d like to say thank you to our local Dell team and Dell partners for their hard work, and to Dell for making such excellent products.”



View all Dell case studies at: dell.com/casestudies

Availability and terms of Dell Services vary by region. For more information, visit: dell.com/servicedescriptions
© August 2010. Intel and Intel Xeon are registered trademarks of Intel Corporation in the United States or other countries. Microsoft, SharePoint and SQL Server are registered trademarks of Microsoft Corporation in the United States and/or other countries. This case study is for informational purposes only. DELL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS CASE STUDY. Reference number: 10007702

