

Ethernet SAN Optimizes XenServer Environment for Ándago

Case Study

Challenge

Deploy a high performance, low cost, and easy-to-use shared storage solution for a XenServer virtualization environment while protecting data from hardware failures.

Solution

- Coraid EtherDrive® SRX2800
- Coraid EtherDrive VSX2500
- No Single Point of Failure Architecture

Benefits

By turning to Coraid to build an Ethernet SAN, Ándago's IT team found a solution that outperformed their Fibre Channel alternatives for a fraction of the cost. They were also able to protect their data and operations with a no-single-point-of-failure architecture, avoiding downtime for their software developers.

Customer Overview

Ándago is a global innovation, services and solutions company operating in the fields of eGovernment and eHealth. With a presence in Europe and America, Ándago has become one of the leading companies in the use of open source software since its founding in 1996. Ándago's philosophy consists of providing a comprehensive service of high added value based on professional experience and solutions expertise acquired through participation in relevant projects and alliances with leading companies.

Partner Overview

Ultreia Comunicaciones is a company devoted to IT infrastructure planning, deployment and management, mostly using Linux and Free Software. Operating since 2002 in Vigo, the North-West of Spain, Ultreia has a customer base of both public and private organisations. Ándago turned to Ultreia, to provide a storage solution that could deliver high performance, and failover protection, at the lowest total cost of ownership.

Business Challenge

Since Ándago builds software solutions for government and health customers, its business model hinges on the productivity of its development team. To develop and test across different platforms, the team needed access to a server infrastructure that would be easy to access and at the same time easy to redeploy. To meet these needs, the team decided to adopt a virtualized environment that would simplify their computing infrastructure and could easily grow, provide simplified management, and integrate with their XenServer virtualization platform.

Before the virtualization project, Ándago's development infrastructure consisted of individual physical servers with internal direct attached storage. Configuring a new system for a developer could take hours, while many systems would sit idle if not in use by a specific developer. Jose Manuel Ferrer Mosteiro, System Administrator and Javier Turégano Molina, IT Operations Manager wanted to consolidate their development servers to reduce costs, improve server utilization, and decrease time to market. But they needed to invest in a storage area network (SAN) to share data and to enable all the functionality of XenServer, including live migration of virtual machines.

Solution

To achieve these requirements, Ultreia recommended a no-single-point-of-failure Ethernet SAN architecture from Coraid. Two Coraid EtherDrive SRX2800s with two EtherDrive VSX2500s were connected to the XenServer infrastructure which was already supporting more than 100 virtual machines.



Each of the Xen servers contained two host bus adapters (HBAs) connected to redundant Ethernet switches which were connected in turn to the VSX and SRX appliances (see diagram below). This architecture ensures that the failure of any one component, from HBA to switch to storage appliance, will not result in a disruption in service. Plus, to provide further protection, the data was mirrored between the two SRX appliances. Jose ran “every kind of test of reliability, even unplugging every cable,” and reported “The system synchronizes perfectly.”

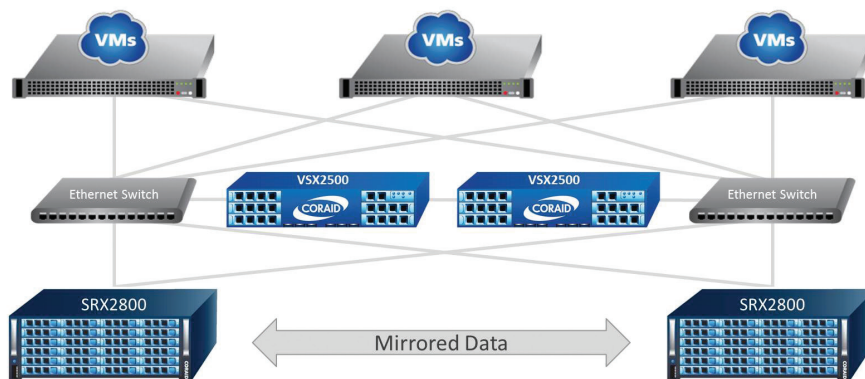


Diagram of Andago No-Single-Point-of-Failure Architecture

Benefits

After deploying the Coraid storage systems, Andago’s team has been impressed with the ease of use, performance and reliability of the Ethernet SAN solution. Jose Manuel Ferrer Mosteiro said the system “is very easy to manage and works extremely well.” It also gives “more performance than expected.” Further, with data mirroring and no-single-point-of-failure, the system is extremely robust.

Andago now has a virtual infrastructure with a significantly lower total cost of ownership compared to a legacy Fibre Channel storage array but has not sacrificed data protection or performance. With greater flexibility in the storage system, the developers can now be more productive, and Javier and Jose are no longer concerned that a storage hardware failure will disrupt their business.

