

Duplo Turns to Coraid Ethernet Storage for High Performance Hyper-V Virtualisation

Case Study

Challenge

To deploy a high-performance, low-cost and easy-to-use shared storage solution in a Microsoft Hyper-V virtualisation 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, print finishing specialist Duplo found an enterprise-class solution that out-performed Fibre Channel and iSCSI alternatives for a fraction of the cost. It was also able to maintain continuity of operations with a no-single-point-of-failure architecture.

Customer Overview

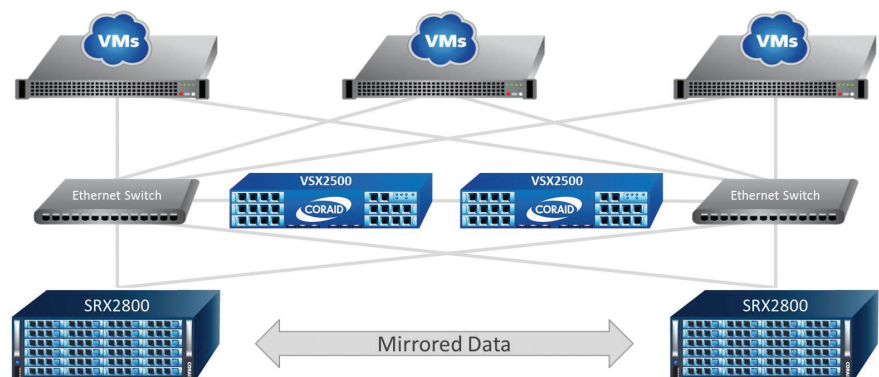
Duplo International provides finishing and printing equipment to all types of print operations across Europe, the Middle East and Africa, enabling them to become more successful and to create new opportunities in the markets they serve. It has a network of distributors, with whom it has long-standing relationships, in 108 countries and operates a direct sales operation in four: the UK, France, Italy and Poland.

Business Challenge

Duplo International relies on its application infrastructure to keep its business running. However, like many companies, it found that its servers were underutilised and costing more than they should. Duplo decided to deploy server virtualisation to simplify its compute infrastructure and needed a storage solution that could grow easily, provide simplified management, and integrate with its Microsoft Hyper-V virtualisation platform.

Technical Challenge

Before the virtualisation project, Duplo's application infrastructure consisted of individual physical servers with internal direct attached storage. The business relied on servers running applications like Microsoft Exchange for email and messaging or SalesLogic for customer relationship management. However, these servers were only 10-15% utilised, indicating an opportunity to reclaim capital expense and reduce power and cooling costs. "We knew that server virtualisation would help us reduce our spend. However it would require a shared storage environment and our concern was that this would be so expensive that it would negate our server consolidation savings," said Glyn Nutting, Financial Director at Duplo International.



Solution

Duplo turned to Axis First, a certified Coraid reseller, to help design the shared storage architecture. Upon investigation, Axis First confirmed that Fibre Channel was too expensive and complicated, but they were not prepared to sacrifice performance by selecting an iSCSI solution. Axis First recommended a no-single-point-of-failure architecture built using EtherDrive.

Duplo deployed two Coraid EtherDrive SRX2800s with two EtherDrive VSX2500s connected to their Hyper-V R2 infrastructure running over 1 GB Ethernet network. This Ethernet SAN solution leverages ATA-over-Ethernet (AoE) to provide a high performance, scalable architecture built with off-the-shelf hardware. "By leveraging Ethernet as a storage protocol we eliminate the need for costly and time-consuming training for our end users," said Marcos Burnett, EMEA Sales Director, at Coraid. "Fibre Channel is fast but costly, iSCSI is affordable but slow; Ethernet SAN eliminates that trade off, offering the best performance and the lowest cost of ownership. What's not to like?"

Each Hyper-V server contained two HBAs connected to redundant Ethernet switches which were connected in turn to the VSX and SRX appliances. 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, the data was mirrored between the two SRX appliances, ensuring full data protection. "With the Duplo team we tested every aspect of the Coraid system; we even pulled power cables, but everything continued to work perfectly," said Nick Dixon, Technologies Sales Director, at Axis First. "Duplo had a very clear and demanding brief for us and thanks to Coraid we ticked all the boxes."

Further proof on the power of a no-single-point-of-failure design came as Duplo was migrating Exchange mailbox data to the new array. When a switch configuration issue caused them to take one VSX and one SRX completely offline, the data mirror continued to operate and there was no disruption to the migration.

Benefits

After deploying the Coraid storage systems, Duplo has been impressed with the ease of use, performance and reliability of the Ethernet SAN solution. By leveraging Ethernet, a technology that they knew well, combined with the simplicity of the Ethernet SAN architecture, they were able to deploy enterprise-class features within budget. Duplo estimates that the Coraid solution cost 20% of the alternative infrastructures they investigated. Dixon continues, "We initially looked at Coraid because of the low TCO but we were then blown away by the performance and the simplicity. We can provide our customers with enterprise-class features with a midrange budget; the Coraid solution came in at less than half the cost of a similar performance Fibre Channel environment."

Duplo now has a virtual infrastructure without sacrificing data protection or performance at a significantly lower total cost of ownership compared to a legacy Fibre Channel storage array.

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