



CASE STUDY

DIGITAL RISK LLC

LOCATION: UNITED STATES

INDUSTRY: FINANCE

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Risk management services provider Digital Risk LLC gains high availability for databases by choosing StorMagic SvSAN



BUSINESS CHALLENGE

To make confident lending decisions in the US housing market, originators, servicers, and government entities need to identify errors, misrepresentation, or non-compliance quickly and reliably. Many of these organizations turn to Digital Risk LLC to get the benefit of the combined talent of thousands of risk analysts and advanced analytics performed using the company's Making Mortgages Safe solutions suite. From credit risk to operational risk and fraud, Digital Risk provides a comprehensive platform to service the entire mortgage lifecycle or points along the way, depending on the customer's needs.

The company's analytics applications are based on Microsoft SQL Server databases, which must be available 24 hours a day. As a growing company, Digital Risk needed to keep an eye on the budget while providing high availability and robust performance for the database servers.

The company wanted to virtualize database, reporting, and data warehousing servers with VMware vSphere to gain the benefits of VMware HA and VMotion technologies, but it needed servers that could handle the load of a virtualized SQL Server environment, as well as shared storage. An enterprise-class storage area network (SAN) that could provide enough Input/Output Operations per Second (IOPS), however, was not in the budget. The company was also concerned about a less than optimally configured SAN representing a single point of failure.



With StorMagic and Cisco UCS, we were able to use just two servers and avoid the up-front and maintenance costs associated with a SAN, saving around \$250,000.

David Mahgerefteh
Director of IT, Digital Risk

SOLUTION

With an enterprise-class SAN being considered but not within the budget, Digital Risk therefore chose StorMagic SvSAN and Cisco servers.

- For fastest performance, Digital Risk chose Cisco Unified Computing System (UCS) servers with multiple redundant connections to Cisco NexusR 5548 Series switches.
- For storage they chose StorMagic SvSAN, unique in that it leverages the internal drives in the VMware host servers to create a virtual mirror between storage in different physical servers, enabling a shared-storage architecture at a fraction of the cost of a traditional SAN.
- With 24 hard drives in each Cisco UCS C220 Rack Server, Digital Risk can cluster the SQL Server databases for resiliency using VMware technologies without diminishing performance.

WHY STORMAGIC

- A proof of concept test validated reliability and performance – they unplugged the power to one of the servers, and failover was seamless.
- Cost-effective yet reliable solution.
- VMware certified.

SvSAN with Cisco

Cost effective, highly available hyperconverged infrastructure that is simple to manage: SvSAN is fully certified on Cisco UCS servers and available on Cisco's Global Price List.

- With a 2-server solution, Digital Risk avoided the up-front and maintenance costs of an extra SAN server, saving around \$250,000.
- Simple and accelerated deployment - it's very easy to set up a VMware cluster – only six weeks to complete the proof of concept.
- Elimination of single point of failure.
- Centralized management – SvSAN installs as a plug-in on top of VMware, so Digital Risk can manage storage and virtual machines from a single pane of glass using VMware vCenter.
- In addition, Digital Risk uses Cisco Unified Computing System (UCS) Manager, which provides unified, embedded management of all software and hardware components in the Cisco UCS environment making management of their Cisco servers efficient and helping to keep costs down.
- Performance has been so good that the company subsequently virtualized other internally developed applications over to the same hosts to improve performance, with 90% of employees accessing SQL-driven applications every day, Digital Risk say this is helping improve productivity.

