

INSIGHT LEADER

With a virtualization solution from Dell, Merlin Securities simplifies its data center, reduces the server footprint by 60% and saves power, cooling and floor space costs.



SOLUTIONS

- BACKUP/RECOVERY/ARCHIVING
- CLUSTERING
- CONSOLIDATION
- DATABASE MANAGEMENT/UTILITIES
- POWER & COOLING
- VIRTUALIZATION

MERLIN

SECURITIES

CUSTOMER PROFILE

COUNTRY: New York, New York (USA)

INDUSTRY: Financial Services

FOUNDED: 2004

NUMBER OF EMPLOYEES: 45

WEB ADDRESS: www.merlinsecurities.com

CHALLENGE

Merlin Securities needed to scale up from its initial Dell infrastructure to accommodate the annual doubling of its customer base and quadrupling of information under management. At the same time, the company wanted to reduce the cost of its IT infrastructure and keep employee headcount down, while offering clients deeper insight into their portfolios.

SOLUTION

Virtualizing servers in a blade system environment proved to be the solution for scaling, reducing IT costs and automating compute-intensive analysis to widen Merlin's competitive edge and draw in new customers. The company also upgraded its SANs to benefit from a live disaster recovery solution that provides high availability for introducing new product releases.

BENEFITS

Run IT Better

- 60% reduction of data center footprint, helping to save power, cooling and floor space costs, while avoiding need to move to more expensive hosting center
- 50% savings in capital expenditures compared with cost of rack-mounted servers

Grow IT Smarter

- 39% reduction in server utilization, leaving plenty of room for growth
- Merlin enjoys exponential growth and revenues as well as overwhelming client satisfaction thanks to its simplified IT solution



As new financial services companies emerge, they frequently rely on their IT infrastructure to differentiate themselves from the competition by providing value-added services for their customers. And if these companies catch on, as Merlin Securities has, the task then becomes to manage costs by automating as much work as possible, raising productivity and keeping their competitive edge as sharp as the mythical sword Excalibur.

“WE LOOKED AT ALL THE DIFFERENT ALTERNATIVES AND DID OUR DUE DILIGENCE, BUT WE WERE VERY PLEASED WITH THE PRODUCTS AND SERVICE WE HAD RECEIVED FROM DELL. WE MADE THE DECISION TO STAY WITH DELL AND WE’VE BEEN EXTREMELY HAPPY WITH OUR LONG-TERM COMMITMENT TO DELL.”

Amr Mohamed, Chief Technology Officer, Merlin Securities

Merlin Securities offers advanced prime brokerage services to some of today’s largest hedge funds, making its living delivering cutting-edge portfolio and analysis tools. The brokerage’s flagship product, MerlinSHARP™, is designed to meet the evolving needs of hedge funds by providing attribution, risk and performance reporting across an entire hedge fund.

After less than three years of operation, Merlin Securities earned a rating in the Global Custodian 2007 Prime Brokerage Survey and ranked number one in several categories. “To describe this debut as impressive would be an understatement,” says the accompanying article. Alpha Magazine also ranked Merlin number one for hedge funds with \$1 billion in assets or less. The company has also been listed in InfoWorld’s 100 Awards for most innovative

financial services company. More recently, Sequoia Capital invested in Merlin as a means to participate in the fast growing and highly dynamic hedge fund industry.

The emergence of Merlin Securities as one of the fastest growing prime brokers has proved the worth of its original business model, but with its rapid growth—doubling its client base in the most recent year and quadrupling the amount of information under management—the company needed to refresh its Dell IT infrastructure to scale up while reducing costs. Merlin needed to keep strengthening its competitive advantage by offering more and better reports, enabling its clients to recognize trends in real time, all the while streamlining its IT infrastructure and making it work harder to deliver value-added features to clients.

HOW IT WORKS

HARDWARE

- Dell™ PowerEdge™ 1955 servers with Intel® Xeon® processors
- Dell PowerEdge 2850 servers
- Dell/EMC CX3-20 and CX700 SANs

SOFTWARE

- VMware® ESX Server
- Oracle® 10g Release 2
- Dell OpenManage™ Server Administrator and IT Assistant

SERVICES

- Dell Silver Enterprise Support

“MERLIN IS GETTING A TREMENDOUS AMOUNT OF VALUE FROM ITS THREE YEAR PARTNERSHIP WITH DELL. THEY UNDERSTOOD OUR INITIAL NEEDS AND ASPIRATIONS AND GREW WITH US LEAP BY LEAP.”

John Quartararo, Partner, Sales and Marketing, Merlin Securities

THE INCREDIBLE SHRINKING DATA CENTER

With Dell PowerEdge servers and Dell/EMC storage hardware, Merlin Securities has altered the competitive landscape in the prime brokerage industry. “A critical component of our offering to hedge funds is our capacity to execute at all levels and to deliver reports quickly,” says Amr Mohamed, chief technology officer at Merlin Securities. “Dell’s ability to rapidly deploy technology and support teams has made a difference in helping us meet our clients’ day-to-day service expectations.”

To increase its capacity for serving clients, Merlin decided to virtualize its server infrastructure using Dell PowerEdge 1955 blade servers running Red Hat® Linux® 4 ES/AS, Oracle Enterprise Linux® 4, VMware ESX Server 3.5, VMware VirtualCenter 2.5 and VMware Consolidated Backup 1.1.

Dell/EMC CX3-20 and CX700 SAN storage systems provide storage for up to eight terabytes of data. Dell delivered an end-to-end solution, including VMware and four-hour Platinum support contracts with VMware.

With VMware and Dell blade servers, the company has already solved the first of its challenges, which was to expand server capacity while reducing cost. Not only can Merlin Securities minimize the number of servers it has to buy and manage in-house, the 60 percent reduction in server footprint has helped the company avoid a move to a larger, more costly data center.

“The cost of renting space at a data center has doubled over the past three years,” says

Mohamed. “Thanks to Dell and VMware, we don’t have to move and we’re taking up less space in our existing facility. Power costs are also 30 percent less. I estimate we scaled out at half the cost of buying more rack-mounted servers.”

Merlin has implemented a three-node VMware cluster and a two-node Microsoft® cluster running Microsoft Exchange Server®. Twenty physical blade servers give Merlin Securities 60 new virtual servers to process the tremendous amount of data it has accumulated in an Oracle database on the performance of portfolios and pass this insight on to its customers. The main Oracle production databases are running on Dell PowerEdge 2850 servers. Since Oracle supports the virtualization of small stand-alone databases, all auxiliary databases are virtualized. The main production and disaster recovery databases are running Oracle RAC on physical servers.

“With our expanded capacity we’ve built new reports for clients,” says Mohamed. “One of the reports we’re focusing on now is a time series analysis. This is different from the traditional portfolio reporting when you’re just reporting on positions, P&L and performance. With the critical daily information that we have in the system, we can start giving our clients an ability to do trend analysis of how their portfolio’s exposure and performance have changed over time and daily charting of this information. This is again differentiating us from our competition. A lot of that we couldn’t have done without the ability to maintain daily data and grow our Oracle database to the size it is now, which is nearly two terabytes.”

FULFILLING THE PROMISE OF SUCCESS

Merlin Securities has exceeded the expectations it has set out for itself. The company has used Dell and VMware technology to help reduce costs and avoid having to hire additional personnel while delivering more value to customers. “We’ve improved the productivity of our account service people so that we can add more clients and manage them without adding staff,” says John Quartararo, partner, sales and marketing, Merlin Securities. “Clients are able to better understand their portfolio and what’s going on in it. They can use this technology to communicate more effectively and efficiently with their current and prospective investors about what they’re doing and what’s behind their results. This gives fund managers the ability to stay focused on the fund’s performance while growing their business.”

STAYING WITH DELL FOR TECHNOLOGY REFRESH

Just before taking the virtualization route, Dell upgraded to Oracle 10g database, Release 2, to take advantage of its support of XML formats, which help enable its developers to do more with less work to provide sophisticated analysis. In part, that decision was due to Dell’s certification of its hardware to support Release 2. “We knew when we were making the decision to upgrade Oracle that we would be undertaking a major technology refresh a few months down the road,” says Mohamed. “The fact that Dell had certified its hardware for Oracle 10g, Release 2, gave us a comfort level to choose Dell for our hardware again. Nonetheless, we looked at all the different alternatives and did our due diligence, but we were very pleased with the products and service we had received

from Dell. We made the decision to stay with Dell and we've been extremely happy with our long-term commitment to Dell."

DELL/EMC STORAGE ENABLES LIVE DISASTER RECOVERY

Merlin also chose to upgrade its storage hardware at the same time it virtualized its server infrastructure. Now, a Dell/EMC CX3-20 and a Dell/EMC CX700 serve as primary storage at the production site and another CX700 runs at a remote disaster recovery site. Merlin is using EMC® SnapView™ to offload the main database servers from the task of making backups and distributing backup files to standby and disaster recovery systems. The production system regularly switches over to the disaster recovery site on the weekend as the team rolls out new releases of MerlinSHARP. "Having a live disaster recovery site enables us to roll out new functionality more often because we don't have to shut down our systems at all," says Mohamed. "That gives us the 24x7 availability our customers want."

Merlin Securities has also deployed Dell Open-Manage Server Administrator and IT Assistant. "To reduce administrative overhead, we need to monitor performance automatically," explains Mohamed. "We chose Dell OpenManage over other server management applications because it was easy to integrate with our existing applications. It works out of the box without any customization. It couldn't be easier to deploy and use."

Merlin's partnership with Dell has been a positive experience for the fast-growing company which has succeeded in differentiating itself with cutting-edge technology. "Merlin is getting a tremendous amount of value from its three year partnership with Dell," says Quartararo. "They understood our initial needs and aspirations and grew with us leap by leap."

To read additional case studies, go to DELL.COM/CaseStudies.

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April 2008

Printed in the U.S.A.

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