



## CoperGMPS Banks on VMware to Streamline Datacentre

ESX Server Enables Increased Business Flexibility, Cost Effectiveness and Efficiency

### RESULTS

- Time spent on server rollout reduced from eight hours to two hours
- Server utilisation rates increased by 100%
- IT infrastructure overhead costs reduced by 20%
- Flexible, scalable infrastructure

### Reorganising a complex infrastructure

Consorzio Operativo Gruppo Monte dei Paschi di Siena (CoperGMPS) is the Information and Computer Technologies (ICT) services division of Gruppo Monte dei Paschi di Siena (GMPS), one of Italy's largest banks. The bank serves approximately 4.7 million customers with 2,000 branches and more than 28,000 employees.

Following several mergers and significant growth in the number of applications it uses, CoperGMPS found it increasingly time-consuming and costly to manage the bank's complex IT infrastructure. Another problem was the poor utilisation rate among the 1,000 physical servers, whose operating systems and applications were using only a fraction of the available CPU and memory capacity. With spiraling costs and an expanding server farm, CoperGMPS knew that the current infrastructure setup would not support its demand indefinitely, and measures had to be taken to make the infrastructure more scalable and flexible.

As part of the long-term strategy to improve efficiency within the division, Stefano Benassai, manager of peripheral systems, was tasked with implementing a flexible and scalable infrastructure that would both cut costs and ease management. Moreover, the setup had to be considerably more efficient in terms of memory and CPU utilisation than it had been.

"The main problem was that the central IT team was spending more and more time deploying and managing servers rather than engaging in productive work which would benefit the business," commented Benassai. "My aim was to find a solution that would reduce this management overhead now and in the future."

### Achieving a competitive advantage while lowering costs

After learning about VMware software and the VMware value proposition, Benassai turned to IBM to assist in setting up a pilot virtualisation project. Rigorous testing was carried out on load balancing between virtual and physical servers, sharing a single x440 server with eight virtual machines and coupling physical and virtual servers to remove single points of failure.

As a result of this successful pilot, CoperGMPS decided to install VMware ESX Server on four IBM xSeries servers, each of which ran ten virtual machines. This move proved extremely successful and Benassai has seen a number of tangible benefits:

- **Significantly reduced total cost of ownership.** CoperGMPS has reduced hardware costs by running 150 servers on just 15 physical machines, significantly lowering server farm overhead. As well, the number of hours spent deploying new servers has reduced from eight hours to two hours, freeing up time for more productive tasks.

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*Stefano Benassai  
Manager of Peripheral Systems, CoperGMPS*



#### VMWARE ESX SERVER AT WORK

- 17 IBM xSeries servers with 8CPU, 8 GB RAM
- 4 IBM xSeries servers with 16CPU, 8GB RAM
- Windows 2003 guest operating systems
- Windows 2000 guest operating systems
- Linux guest operating systems
- Commercial applications include Oracle, IIS
- In-house developed applications

- **Ease of management.** Server farms in Siena and Florence are now managed logically from one location, avoiding unnecessary travel time and expense.
- **Improved utilisation rates.** Applications that previously required a number of specialist servers can now be run in virtual environments on one physical machine. This, combined with the sharing and load balancing capabilities, has improved utilisation rates by 100%, in line with CoperGMPS' targets.
- **Reduced time to market of new business functions.** By having the ability to test, develop and deploy applications more rapidly, CoperGMPS can realise the benefit of new business functions far more quickly, thus increasing its competitive advantage.

#### How VMware ESX Server Provided a Return on Investment

By installing VMware ESX Server on 17 IBM xSeries servers, each running ten virtual machines, while servers with 16 CPUs are running 15 virtual machines each, CoperGMPS has been able to achieve its goal of having fewer but more powerful machines used to their optimum efficiency.

A large number of applications are supported in this environment, ranging from commercial packages such as Oracle and IIS to applications developed in-house. CoperGMPS supports 32,000 users, 94% of whom access systems via the Web; performance and service levels are a high priority. Resources are allocated across servers through load balancing that ensures high performance in line with demand.

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Another principal activity of the central IT team at CoperGMPS has been the development and testing of applications. With the virtual infrastructure in place, testing has been streamlined and applications have been put into production considerably more quickly.

CoperGMPS's infrastructure is constantly evolving and the most recent activities include the rollout of VMware Virtual SMP and integration of SAN attachment.

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