

German Historical Institute in Rome

» Consolidation and virtualisation are the main ways we are looking to contain costs and ensure adequate flexibility for future developments «

Niklas Bolli, IT Systems Manager, German Historical Institute in Rome



THE CUSTOMER

Country: Italy

Industry: Scientific research

Founded: 1888 Employees: 53

Website: www.dhi-roma.it



THE CHALLENGE

Research is at the heart of the work at the German Historical Institute in Rome. Some years ago, work began on building multimedia databases to make the research accessible to the public. These developments forced the institute to think about how it could streamline operations to achieve necessary savings.

THE SOLUTION

Thanks to the support of Fujitsu and 'Select Expert Partner'
Datamate, the institute embarked on a virtualisation process that
allowed it to replace machines that had come to the end of their
lifecycles, and lay the foundations for future growth, without having
to worry about buying new, specially-made hardware. The project
also resulted in better quality cooperation with external partners.

The customer

Founded in 1888, the German Historical Institute in Rome is one of Germany's oldest foreign historical organisations. The institute's activities revolve around historical research and it offers scholars a library collection that stretches from the late medieval period to the end of the Second World War, containing over 157,000 books and 645 present-day journals. The institute also houses a Music History section, which focuses on inter-relations and influences between Italian and German music, with a library numbering some 55,000 books and 400 journals.

The challenge

The desire to raise the profile of its research and make it more accessible led the institute to build multimedia databases that enable online consultation of research and book collections, which were previously only available in hard copies. The process began in around 2003, with each application or project initially being assigned a dedicated server. However, "this growth method turned out to be increasingly unsustainable as time went on," remembers Niklas Bolli, IT Systems Manager at the institute. "So, in 2010 we embarked on a consolidation process in order to contain costs and ensure adequate flexibility for future developments."

The solution

Virtualisation seemed to be most sensible route to take, partly in order to consolidate existing resources but also to replace a number of IT resources that had come to the end of their lifecycle. Now, a Fujitsu PRIMERGY BX620 Dual-Socket blade server set in a VMware vSphere 4 environment covers all new development needs and also manages document consultation traffic. At the same time, an initiative was launched to gradually digitalise the institute's library collection. The project is ongoing, but has already led to the production of 85,000 images using the Fujitsu ETERNUS DX60 range. Bolli explains: "Our technology choice was certainly led by product quality, but also by the advice and support that Datamate can provide."

THE BENEFIT

- Lower system maintenance costs
- Ability to use virtual machines to test new applications
- Drastic reduction in heat emissions and energy costs
- Integrated management of library digitalisation process

THE PRODUCTS

- PRIMERGY BX620 blade server
- Fujitsu ETERNUS DX60 storage systems
- VMware vSphere 4.1 Essential Plus virtualisation environment
- Guarantee covering high product reliability

The benefit

The German Historical Institute in Rome opted to develop its own multimedia databases that would bring together its past research. The steady increase in the amount of information held and made available clearly necessitated an infrastructure that would be capable of ensuring fast access and adaptability to future developments. "We have been working with open source protocols so that we are not tied to products that might no longer be available in a few years, but we are also keen to have a number of platforms in use side-by-side," continues Bolli.

In the light of these requirements, and against a difficult background of maintenance costs and environmental impact, the decision was taken to begin the virtualisation process. The initial 'pilot' project involved eight servers that had come to the end of their lifecycles. Four of these were virtualised, with eight new servers added. Using this method, the institute's IT department can use some of the machines to test applications before they go online: "We feel comfortable about continuing to work like this in the future," says Bolli, "so that we can experiment without having to invest in new hardware."

The simplicity of VMware vSphere's own provisioning makes every decision-making process faster, since it is no longer necessary to gain permission to take up new servers. The Fujitsu PRIMERGY BX620 dual-blade servers put in place also help to support the institute's ongoing research links with other important organisations, such as the Vatican Secret Archives, the Collegio Teutonico, the Agence Nationale de la Recherche in France, and the State Archives in Munich.

The data centre consolidation plans are twinned with the digitalisation of the institute's library collection. The project began with the music history section and there are around 85,000 images already available online, occupying 5TB of Fujitsu ETERNUS DX60 storage. Here, virtualisation makes it possible to use the same available capacity to backup and secure stored files.

The digitalisation process will, in future, gradually be rolled out to include all works in the institute's library and members of the public who visit the institute will be able to consult the files from as early as

2012 via Fujitsu Zero Client terminals. Compared to the previous approach, the virtualisation project has brought about clear cost savings, not only in terms of procurement but also management and maintenance. "But that's not all," adds Bolli. "We have also seen an 80% reduction in heat emissions, plus related savings in cooling costs. Moreover, we forecast a 50% drop in future energy costs."

Datamate's role

Fujitsu is not the only company driving the institute's innovative plans. Indeed, 'Select Expert Partner' Datamate not only supplied and installed the hardware components, but also provided advice and support to the institute during the planning phase. Datamate carried out an overall analysis of existing IT resources and applications, advising on what would be worth virtualising and what could be left out, before installing the Fujitsu systems and providing qualified staff to support the client in using the VMware environment. "We didn't only supply the nuts and bolts, but also the brains," says project lead, Ciro Perillo.

Conclusion

Although it has a relatively small IT hardware set-up (25 servers and around 100 clients all in all), the institute matches the profile of a medium-sized company looking to optimise and rationalise its data centre. The virtualisation process has brought about genuinely quantifiable results and also ensured a balanced path for growth.

"Research is at the heart of our work and we want to share it with our partners and interested members of the public. Virtualization on robust, reliable machines allows us to test and program all our development projects." Niklas Bolli, IT Systems Manager, German Historical Institute in Rome.

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