Case Study

UNIVERSITÀ DEGLI STUDI FIRENZE

SIAF
SISTEMA INFORMATICO DELL'ATENEO FIORENTINO

University of Florence: The largest university library in the city becomes centrally managed with Praim

University of Florence - Social Sciences Library

Goals

- Leave Windows XP workstations
- Leave Terminal Server
- Make applications independent from the hardware installation
- Provide a system to configure quickly the classrooms workstations

Challenges

- Maximize desktop resources for users
- Limit implementation costs
- Migrate workstations quickly and with few human resources available

Solutions

- Implementation of VDI infrastructure
- Using Atomino Quad Core Series thin clients
- Automatic thin clients configuration via ThinMan Platinum

Results

- Reduced virtualized desktops management time
- Centralization and time saving in the workstations configuration
- Quick deployment, run by not necessarily technical staff members
- Improving the library environment with total absence of noise
- More compact workstations with thin clients mounted behind the monitors
- High energy savings

For its VDI infrastructure, the University chose the flexibility and management of Praim thin clients.

The University of Florence is an important and influential centre for research and higher training in Italy, with 1,800 lecturers and internal research staff, 1,600 technical and administrative staff, and over 1,600 research assistants and doctoral students.

With 126 degree courses, it is organised in 10 Schools, with a faculty of about 51,000 enrolled students. Over 9,000 degrees are awarded each year.

During the year 2014, SIAF - Servizi Informatici dell'Ateneo Fiorentino, which organizes the online services at the University of Florence, launched a project to replace the existing PCs of the Social Sciences Library, the largest university library in the city, and the city offices of the Humanities Library. The need was to replace Microsoft Windows XP and Terminal Server workstations, which were un-supported.

At the beginning of 2016 approximately 230 PCs were replaced with thin clients and a centrally managed VDI system. Appreciated by users and IT staff, it was decided to extend the project to the computer classrooms as well. The replacement of devices began, initially with the obsolete units. Currently, SIAF provides about 320 workstations, some with dedicated graphics hardware , and the forecast is to expand to about 800 workstations in 2018.

Create flexible and custom workstations

The first workstations that migrated to the VDI system were configured as kiosks, providing access to: databases, web based and client-server consultation, the use of office applications for dissertations/ research and Internet browsing.

"The biggest challenge for the kiosk environment has been to address the migration of a large number of different workstations, with little human resources available and providing a fast and secure service", explains Nicola Corsi, SIAF - Head of IT Services for Regional Health Service Common Structures.

Praim Atomino Quad Core Series

In addition, for teaching classrooms there was the need to quickly respond to requests for additions/modifications of the software needed for teachers for their lessons.

These classrooms, equally distributed throughout the city, are used for exercises on the most diverse types of software: the need was to divide them between applications that needed specialized graphics processing skills and those applications that did not.

It was clear that the flexibility of a VDI environment, could allow efficient use of classrooms, completely removing PC hardware which previously was a restricting obstacle.

A VDI infrastructure and flexible and managed thin client devices

The main objective of the project was to satisfy users and to maximize resources in terms of efficient use of technical equipment, at a lower cost for the Italian State's finances.

"The ability to manage hierarchically a VDI infrastructure, allows you to work in teams with the highest margins of freedom, for the needs of the entire IT department", says Corsi.

The VDI infrastructure that SIAF has chosen to implement is based on the VMware Horizon suite. For the hardware part, the hyper-convergence paradigm has been adopted, which allows the University to address the increase in the demand for distributed stations in almost linear terms; in 2018, SIAF foresees a near total replacement of all PCs in the classrooms, and as a parallel project to also migrate the administration workstations.

The choice of thin clients and a VDI solution was motivated by the great flexibility of endpoint management, implementation speed, rationalization of helpdesk interventions, and energy saving. The supply of hardware devices is homogeneous and consists in the Praim Atomino A9054 thin clients with Praim ThinOX operating system. Terminals have been mounted with VESA brackets behind the monitors to combine functionality and aesthetics: in this way, with a suitable routing of the wiring, the workstation appears composed of the monitor only.

All the workstations have also been integrated with the unified print management system of the 3 Tuscan universities. Clients are distributed throughout the city and connected to the University Network (MAN).

"Praim has been chosen for its history and its specialization, because it is an Italian company and because development and support are efficient and effective. In addition, with the Praim ThinMan Platinum console, once the few necessary parameters have been configured, we have been immediately operative as a single process. Additionally, terminal deployments can be performed by staff who are not necessarily competent in the IT industry", explains Corsi.

The most common ThinMan Platinum operations performed by SIAF are those related to remote control for helpdesk reasons and firmware upgrade or modifications to the VDI client configuration.

Operations optimization meets green computing

The adoption of a VDI system allows SIAF to manage user locations with an industrialized logic, allowing operators to work better, avoiding repetitive and routine operations by focusing on the nature of their business.

"I underline the remarkable availability of Praim support, both for the ability to detect and troubleshoot software problems, but also for the development of unplanned features that make ThinMan and thin client a truly customized system", adds Corsi.

The environments, no longer cluttered by PCs, are more silent and comfortable due to the absence of moving parts and low - almost zero - heat emission. Reducing the impact on the environment through the reduction of energy used.

"In all of this, the simplicity and effectiveness of the Praim system almost removed the complexity of the traditional remote workstation", concludes Corsi.

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