

HP customer case study: PGSM Business School Group deploys HP Image Manager Virtualisation software and Thin Client technology to create a secure, cost-effective and easily maintained workstation environment

Industry: Higher education

HP Image Manager and Thin Client technology drives down maintenance costs at leading French business school



“By combining HP Image Manager Virtualisation software with HP Thin Clients, we have simplified machine fleet management, minimised maintenance and established a uniform, secure and fast access system. Students and teaching staff are experiencing improved end-user satisfaction and productivity whilst the school’s IT personnel spend considerably less time servicing the fleet.” Sylvain Michel, systems and network manager, PGSM Business School Group, Paris

Objective:

PGSM Business School Group wanted a centrally managed desktop environment to enhance manageability, minimise maintenance costs and speed software deployment. The solution also had to boost security and improve end-user experience and productivity.

Approach:

- HP conducted a proof-of-concept of its HP Image Manager Software and Thin Client technology.
- PGSM deployed 30 HP Compaq dc7800 Ultra-Slim Desktop PCs, 200 HP Compaq ‘Flashless’ Thin Clients and 198 HP LCD Monitors controlled by HP Image Manager.
- Integrated 300 older desktop units into the solution.
- HP provided technical support throughout the process.

IT improvements:

- High-performance, energy-efficient HP Thin Clients, PCs and monitors.
- HP Image Manager centrally manages the new Thin Clients and desktop PCs and numerous older PCs from the servers’ virtualised hard drives.
- The computer fleet is easy to maintain and more secure. When a user turns on a device, it receives a complete pre-installed configuration from the server’s virtual hard disk.

Business benefits:

- Centralised management minimises fleet maintenance times, saving money.
- Similar solutions have reduced Total Cost of Ownership (TCO) by at least 50 per cent.
- The HP solution provides a secure environment, safeguarding the schools assets.
- Improved user-user experience creates a more productive environment.
- Rapid deployment of new applications and additional HP Thin Clients meet the school’s business needs.



The PGSM Business School Group, a private institution recognised and accredited by the French Government and the French Ministry of Education, comprises four business units located on five campuses in the heart of Paris. Ranked in the top ten per cent of France’s educational establishments, its major fields are business, computer engineering, finance, management and marketing. Most classrooms within each campus contain high-quality IT equipment and, to ensure lectures meet international standards, PGSM always employs the latest teaching methods including modern e-learning techniques. Over 5,000 students study there.

Poorly maintained workstations

To satisfy its students’ and teachers’ IT requirements, ten rooms within PGSM’s four branch offices originally employed 360 standard desktop PCs. Across the branch offices, ten HP ProLiant DL160 G5 Servers with a Linux operating system managed the workstations within this heterogeneous desktop environment; each server could potentially manage up to 120 workstations.

Customer solution at a glance

Primary applications

- System manageability and security

Primary hardware

- 30 x HP Compaq dc7800 Ultra-Slim Desktop PCs
- 200 x HP Compaq 'Flashless' Thin Clients with 2GB memory
- 10 x HP ProLiant DL160 G5 Servers
- 150 x HP L1710 17-inch LCD Monitors
- 8 x HP L1950g 19-inch LCD Monitors
- 40 x HP L1908wi 19-inch Widescreen LCD Monitors
- 300 older desktop units

Primary software

- HP Image Manager
- Microsoft Windows XP Professional operating system

HP software

- HP PSG Software

Previously, every three months two employees used Symantec Ghost, a disk cloning program, to maintain the school's computer fleet either via external disks or its Local Area Network (LAN). This reinstallation process updated and 'cleaned' the disks, removed any viruses and ensured students and staff could access various files and customised features. However, the machines lacked advanced security features and were vulnerable to malicious activities.

"In practice, with this process, it was virtually impossible to maintain the whole fleet by the start of each term. Consequently, teaching staff and students were faced with unusable or poorly maintained workstations," comments Sylvain Michel, systems and network manager, PGSM Business School Group.

"We needed a centrally managed solution with an operating system that does not require software, user document and system parameter changes. This would enhance manageability, minimise maintenance times and speed software deployment whilst simultaneously boosting security and creating uniform 'clean' machines without sacrificing end-user experience and productivity," explains Michel.

Although PGSM felt that virtualisation was the correct approach, it lacked expertise within this field and sought advice from HP. The HP Personal Systems Group (PSG) team explained that they had resolved a similar problem at a nearby university by combining HP Image Manager Virtualisation software with HP Thin Client technology. They described how these complimentary solutions with their energy-saving technologies addressed the school's primary concerns and lowered Total Cost of Ownership (TCO).

After HP had successfully conducted a proof-of-concept, PGSM decided to implement the solution. "We based our decision on recommendations from the University of EVRY's IT manager and our close working partnership with HP over the years," says Michel. "The HP team helped us throughout the trial phase and remote assistance was always available."

'Flashless' Thin Clients and PCs

PGSM gradually introduced HP's virtualisation solution into six buildings. HP Image Manager centrally manages 200 HP Compaq 'Flashless' Thin Clients with 2GB of memory, 30 HP Compaq dc7800 Ultra-Slim Desktop PCs and about 300 older desktop units. Users of the Thin Clients benefit from 198 modern, energy-efficient 17-inch or 19-inch HP LCD Monitors.

The desktops and 'flashless' Thin Clients do not require a disk or operating system because HP Image Manager streams the Windows XP Embedded operating system directly from the servers to the devices whenever end-users switch them on. In effect, a server acts as a virtual hard disk drive; the operating system and any hardware drivers and applications become a single image on the server. Consequently, after a user turns on a device, it immediately receives a complete pre-installed configuration from the server. Linux servers fully support HP Image Manager.

Centralised management secures desktop environment

The HP solution offers PGSM all the benefits of virtualisation and Thin Client technology. By using servers as virtual disk drives, HP Image Manager helps the school use all the software functionality of its new Thin Clients and older PCs. Shared, centralised management eliminates the use of local hard drives or flash memory and, accordingly, desktops do not require individual time-consuming software updates.

To boost security, the desktops employ different modes; a lock-down mode prevents users from making modifications whilst a configurable mode allows authorised staff to make system changes. Server-based management therefore speeds software deployment and reduces the school's desktop maintenance costs, driving down TCO.

Thin Clients offer PGSM outstanding performance for both general and customised applications within a server-based computing landscape. Advanced security features block the installation of unauthorised applications and the introduction of viruses. Easy-to-use management tools allow the school to deploy additional Thin Clients quickly and efficiently, and their compact nature aids installation, even when space is at a premium. Centralised management and energy-efficient components reduce downtime and extend product life, lowering TCO further. When other institutions have deployed similar HP virtualisation and Thin Client solutions, TCO has typically fallen by more than 50 per cent and lower power consumption has made an important contribution to carbon footprint reduction.

"The overall quality of the HP solution is excellent. Managing the fleet centrally is quick and simple; maintenance costs are falling, software deployment is rapid and 'clean' machines enhance end-user experience and productivity. We aim to deploy HP Image Manager and HP Thin Clients to other rooms within our branch offices," concludes Michel.

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