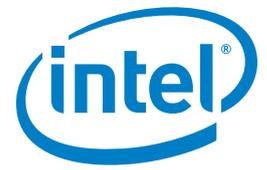**CASE STUDY**
2nd generation Intel® Core™ vPro™ processors
Enterprise Client
Energy Efficiency, Environment, and Performance

(intel®)

Taking control of a computer network

Imperial College London establishes remote management of IT resources with 2nd generation Intel® Core™ vPro™ processors and supporting software

Since 2008, Imperial College London has been upgrading the desktop computing resources available to its staff and student body with new Windows* 7 machines supplied by HP and powered by Intel® Core™ vPro™ processors. From the outset, it planned to harness the built-in remote management capabilities of the processors to streamline the way its IT team was able to maintain the computers. Using the free Intel® Setup and Configuration Service (Intel® SCS) software and Intel® vPro™ technology module for Microsoft Windows PowerShell* the College was able to quickly activate the remote connectivity features to work within its existing management environment.

CHALLENGES

- **Uniform:** Imperial planned to replace its existing heterogeneous desktop computing – around 10,000 machines – over five years with new PCs offering standard computing hardware
- **Connectivity:** It identified the remote management features in the latest processors as offering an opportunity to simplify everyday maintenance processes
- **Simple:** It needed a solution it could bring online quickly and with minimal need for customization to activate the remote connectivity features

SOLUTIONS

- **Control:** Since 2008, Imperial has been replacing older computers with new HP desktops running Windows 7 and powered by Intel Core vPro processors
- **Activation:** To establish the new remote management environment, it used Intel SCS to activate the functionality in the Intel Core vPro processors, and Intel vPro technology module for Microsoft Windows PowerShell to ensure compatibility with its existing Windows Server* platform

IMPACT

- **Easy:** By using Intel's supporting software, Imperial will be able to make new remote management features available to its IT support team
- **Consistency:** The ability to remotely switch machines on and off when needed makes it easier for IT administrators to prepare computers for use each day and ensures that software upgrades can be delivered simultaneously and consistently across all PCs
- **Potential:** Following the success of the implementation, Imperial College is considering extending the use of the remote connectivity features to deliver remote helpdesk services to mobile laptop users

Establishing a more streamlined IT service

As a world-class teaching and research institution renowned for being at the forefront of scientific discovery, Imperial must provide computing services to its 20,000-strong staff and student body that can support their IT requirements. With a large number of computers spread across different sites, the job of overseeing this essential resource falls to the College's dedicated IT team. The team is responsible for ensuring that computers are available and ready for use by students and staff each day and kept fully up-to-date with the latest software and security upgrades.

A program of modernization

Since 2008, the IT team at Imperial has overseen an ongoing process of upgrading its PCs. Until this point, these consisted of a mixture of different generations, models and makes of computers running a variety of operating systems. By updating and standardizing the hardware, the team aimed to provide a more consistent user experience and simplify the process of maintaining its computing estate.

Imperial College London streamlines the management of its computing resources with 2nd generation Intel® Core™ vPro™ processors

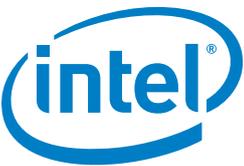## Spotlight on Imperial College London

Consistently rated amongst the world's best universities, Imperial College London is a science-based institution with a reputation for excellence in teaching and research that attracts 14,000 students and 6,000 staff of the highest international quality. Innovative research at the College explores the interface between science, medicine, engineering and business, delivering practical solutions that improve quality of life and the environment – underpinned by a dynamic enterprise culture.

From the outset, Imperial was looking for new computers that it could switch on and off remotely for diagnostic and maintenance work. After assessing a range of potential hardware solutions, it chose to install new HP computers equipped with Intel Core vPro processors, running Windows 7. These offered a winning mixture of computing power along with advanced remote management capabilities that the College was confident could deliver the functionality its support team was after.

Activation

By 2011, Imperial had made significant progress in replacing old computers with the new HP units, and had reached a stage where it was ready to begin harnessing the remote management functionality built into the Intel Core vPro processors. It was at this point that the support services Intel provides for the platform proved invaluable.

Initially, the IT team attempted to integrate the remote connectivity features into its existing Windows Server management environment using the standard tools already at its disposal. However, the process of ensuring compatibility proved more challenging than expected and the team turned to Intel for further assistance.

To ease the process of activating the new Intel Core vPro processors and accessing their remote management features, Intel offers two dedicated programs: Intel SCS and Intel vPro technology module for Microsoft Windows PowerShell. Together these allow IT staff to streamline the process of activating individual PCs and ensure that the processes used to remotely manage the computers run effectively within the existing server management environment.

Streamlined deployment

With the additional support provided by Intel, the team at Imperial undertook a proof-of-concept to test the effectiveness of establishing the remote management functionality. IT staff subsequently moved on to a full implementation of the connectivity features across the College's desktop computing estate, completing this within the space of just a few months.

Efficient and effective

With the ability to remotely switch computers on and off, it is now much easier for the IT team to update systems out of hours when they are not being used by staff and students.

The move to a unified fleet of computers that share the Windows 7 operating system has helped streamline the process of maintaining them, and the ability to take control of a large number of computers simultaneously has further reduced management overhead.

When overseeing important software and security updates, IT staff can now ensure that all the machines are activated and ready to receive the update, with the outcome being a more consistent, reliable computing environment.

Future possibilities

The ease and success of the deployment of the new Intel Core vPro processor-equipped computers has cemented the platform's position at the center of the IT department's ongoing strategy for updating and maintaining the computing facilities at Imperial College. The team has identified, and is now assessing, several potential future applications of the remote management technology. These include resolving lost and forgotten password issues without the need for an administrator to physically visit the computer, and offering comprehensive support to College staff traveling outside the campus with a computer – something that it has not previously been able to provide.

Find the solution that's right for your organization. Contact your Intel representative, visit Intel's Business Success Stories for IT Managers (**www.intel.co.uk/Itcasestudies**) or explore the Intel.com IT Center (**www.intel.com/itcenter**).