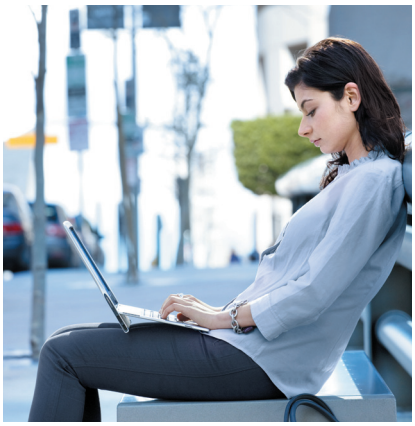
CASE STUDY
Intel® Core™ i5 vPro™ processor
Enterprise Client/Mobility

Pioneering public sector IT

The Swedish Public Employment Service meets mobility and environmental goals thanks to Intel® vPro™ technology

The Swedish Public Employment Service has a large and sprawling client estate. Recently it replaced 14,500 desktop systems with 12,300 laptops powered by the Intel® Core™ i5 vPro™ processor[1]. This enabled it to meet guidelines set out by corporate strategies on mobility and the environment. Going mobile has improved the end-user experience, while remote power management has enabled the Employment Service to significantly reduce energy costs and carbon emissions.



Arbetsförmedlingen

"Switching to laptops powered by the Intel® Core™ i5 vPro™ processor enables us to meet the guidelines set out by our corporate strategies on mobility and the environment. The end-user experience is significantly improved, energy consumption is considerably reduced, and security is enhanced not compromised."

Mats Larrson Lantz
Project Manager,
The Swedish Public Employment Service

CHALLENGES

- **All-round improvements.** The Swedish Public Employment Service wanted to improve the end-user experience and maintain the high security of its client infrastructure, while lowering total cost of ownership (TCO)
- **Green ambitions.** The IT department was also tasked with reducing the Employment Service's impact on the environment by shutting down computers outside of working hours

SOLUTIONS

- **Going mobile.** Employment Service replaced 14,500 desktops with 12,300 HP 8440 EliteBooks* powered by the Intel® Core™ i5 vPro™ processor
- **Power management.** The remote power management feature of Intel® vPro™ technology is used to power laptops up and down, enabling technicians to deploy off-hours security patches without needing to leave laptops turned on 24/7

IMPACT

- **Energy consumption slashed.** Employment Service saves 6,000,000 KWh of electricity per annum, saving SEK 6 million (EUR 625,000) and reducing carbon emissions
- **Mobile flexibility.** Employees enjoy a better experience, since they can work from anywhere with just one user name and password

Large, disparate infrastructure

The Swedish Public Employment Service is a government-funded organisation that matches jobseekers with prospective employers. It has 11,700 equivalent full-time employees.

To support these employees in their work, the Employment Service maintained a large and sprawling client infrastructure, consisting of 14,500 PCs (90 percent desktop/10 percent laptop) split between 400 locations. These PCs run a range of applications from Microsoft Office* to several hundred different benefits and payment systems. All software was managed centrally, rather than locally, using Microsoft Systems Management Server (SMS) 2003*.

Some of the Employment Service's employees carry out more than one job, in more than one location. The Employment Service met their needs by supplying them with more than one PC – one for each job. This system required that the IT team install software and profiles on each machine, which was proving time-consuming for the Employment Service to support.

Transitioning to mobile

To improve the employee's user experience, the Employment Service introduced a corporate project known as the 'Service Concept'. Part of this project recommended replacing the aging desktops with laptops, enabling employees to work more flexibly in the office , on mobile projects with service partners and from clients' sites. Those with two job functions would have just one user name and password and a single laptop they could carry with them between different locations.

The laptop in the 'Service Concept' would also mean that the Employment Service could remove desktops from meeting rooms, since, once again, employees would now be able to take their laptops into meetings with them. Ultimately, this shift would reduce the number of PCs for which the Employment Service was responsible for from 14,500 to just 12,000, also reducing licensing and support costs.

Energy consumption reduced by 85 to 90 percent

Going green

Besides needing to cut costs, the IT department at the Employment Service was also under pressure to reduce the organisation's impact on the environment. Its Employment Service Environmental Policy states that concern for the environment should permeate all of the Employment Service's activities. The IT department in particular had been charged with investigating the impact of shutting down computers outside of working hours. Previously the computers were left on 24/7 to enable the IT department to carry out essential patch management and software upgrades.

It was obvious to Mats Larrson Lantz, project manager at the Employment Service, that the ability to remotely power PCs up and down would result in significant energy savings while enabling the IT department to carry out routine, yet essential security upgrades. The Employment Service's current remote management system alone would not enable this, so, Lantz and his team decided to investigate the advanced remote management capabilities of Intel® vPro™ technology.

Benefits of Intel vPro technology

Laptops with Intel vPro technology integrate robust hardware-based security, enhanced maintenance and management capabilities that work seamlessly with ISV consoles. Because these capabilities are built into the hardware, Intel vPro technology provides IT with the industry's first solution for OS-absent manageability and down-the-wire security even when the PC is off, the OS is unresponsive, or software agents are disabled.[2]

Using Intel vPro technology the Employment Service would be able to remotely power laptops up and down, enabling technicians to deploy off-hours security patches and upgrades and improving the security of the laptop fleet, while saving significant energy.

By replacing its 14,500 PCs with 12,000 laptops powered by the Intel® Core™ i5 vPro™ processor, the Employment Service calculated it would be able to reduce its annual energy consumption by 85-90 percent, compared with older hardware infrastructures running the greater number of PCs. This means an actual saving of 6,000,000 KWh, equating to a cost saving of SEK 6 million (EUR 625,000) and a reduction in carbon emissions. What's more, the 32nm process technology on which the Intel Core i5 vPro processor is built offers both maximum performance and energy efficiency.

Full client refresh

For these reasons, the Employment Service decided to replace its 14,500 PCs with 12,300 HP 8440 EliteBooks* powered by the Intel Core i5 vPro processor – now 12,000 are in use, with 300 in reserve for new starters. The rollout took just eight weeks from start to finish and Intel vPro technology activation is scheduled for the coming eight weeks. The Employment Service will use Intel vPro technology in conjunction with Microsoft System Center Configuration Manager* 2007.

Laptops with the all-new 2010 Intel® Core™ processor family with Intel® Anti-Theft Technology[3] (Intel® AT) provide an added level of hardware-based security. By combining an Intel AT-enabled laptop with an Intel-approved security software vendor, IT administrators can keep laptops safer from theft and loss. The Employment Service is now about to utilise Intel AT to deactivate the client computer when an employee resigns or takes a leave of absence, helping to further improve security.

"Switching to laptops powered by the Intel Core i5 vPro processor enables us to meet the guidelines set out by our corporate strategies on mobility and the environment," concludes Lantz. "The end-user experience is improved since employees can work from anywhere and have just one user name and password. Remote power management enables us to significantly reduce energy costs and carbon emissions while improving overall security. We are now looking to extend our use of Intel vPro technology to include remote troubleshooting, and hardware and software problem remediation."

Spotlight on the Swedish Public Employment Service

The Swedish Public Employment Service is financed by a grant from the Swedish Parliament and the Government. Its task is to match employers with people who are looking for work, in the most efficient manner possible. Sweden's largest employment agency, it provides its services free of charge.

The Swedish Public Employment Service had more than 11,700 equivalent full-time employees in March 2009. Almost 8,000 employees have direct contact with job seekers and employers. About 890 work as psychologists or have other special functions for jobseekers.

Find a solution that is right for your organisation. Contact your Intel representative or visit the Reference Room at **www.intel.com/references**

[1] Intel® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more visit: http://www.intel.com/technology/vpro

[2] Intel® Active Management Technology requires the computer system to have an Intel® AMT-enabled chipset, network hardware and software, as well as connection with a power source and a corporate network connection. Setup requires configuration by the purchaser and may require scripting with the management console or further integration into existing security frameworks to enable certain functionality. It may also require modifications of implementation of new business processes. With regard to notebooks, Intel AMT may not be available or certain capabilities may be limited over a host OS-based VPN or when connecting wirelessly, on battery power, sleeping, hibernating or powered off. For more information, see www.intel.com/technology/platform-technology/intel-amt

[3] Intel® Anti-Theft Technology—PC Protection. No computer system can provide absolute security under all conditions. Intel® Anti-Theft Technology requires the computer system to have an Intel® AT-enabled chipset, BIOS, firmware release, software, and an Intel AT-capable Service Provider/ISV application and service subscription. The detection (triggers), response (actions), and recovery mechanisms only work after the Intel® AT functionality has been activated and configured. Certain functionality may not be offered by some ISVs or service providers and may not be available in all countries. Intel assumes no liability for lost or stolen data and/or systems or any other damages resulting thereof.

0710/JNW/RLC/XX/PDF 324102-001EN