



Solution Brief

Intel® vPro™ Technology
Education Solution

PCs with Intel® vPro™ Technology Keep Maintenance Tasks in the Background and Learning in the Foreground

Lower Your PC Management Costs and Maximize the Impact of PCs in the Classroom

The benefits of technology in the classroom are well-established, and they continue to grow as the innovation of new PC-based classroom tools steadily continues. PCs improve the learning experience by delivering more information, utilizing more effective formats and enabling more effective tools for both students and teachers. The results – faster information, more ways to explore and better feedback – all lead to improved educational outcomes.

But as you support the educational mission, the proliferation of PCs in the classroom increases your challenges. IT budgets are often flat or declining, limiting the amount of PC management you can deliver. At the same time, security threats are constantly increasing and mandate effective protection against viruses and malware. And the typical classroom usage model – high numbers of users, variable user capabilities, and multiple opportunities to corrupt the PC configuration – further adds to the maintenance needs of a typical in-class PC. A non-operating PC simply defeats the value of technology in the classroom and gets in the way of the educational mission.



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Meet the Challenges With Built-In Manageability and Proactive Security

PCs with Intel® vPro™ technology help you meet these challenges by providing unprecedented management capabilities that allow you to keep your PC fleet up and running at lower cost. This advanced technology helps you accomplish your mission in four ways:

Maximize the reach of your funding. Intel vPro technology makes PC management more efficient by increasing your remote management capabilities, automating many management tasks and reducing the number of desk-side maintenance visits – all of which reduce your management costs. In addition, better asset inventories reduce your software licensing costs while lower power consumption reduces your energy costs. Lower costs in these areas mean more resources for value-add activities and innovations.

Reduce classroom disruptions and downtime. If the PC isn't ready when the student or the teacher is ready, it hinders the learning process. Intel vPro technology helps ensure that PCs are ready when they're needed with after-hours patching and updating – even if the PC is off or down – that allow you to manage the PC without disrupting classroom usage; proactive security that prevents virus disruptions; and increased performance that allows faster boot-ups and better performance from multitasking and media-intense applications. PCs with Intel vPro technology keep maintenance tasks in the background and the learning in the foreground.

Improve security. Security threats continue to grow exponentially and drain resources. Intel vPro technology allows you to automatically ensure that security software is up-to-date and stops viruses and malware before they reach the OS. By proactively defeating security threats, PCs with Intel vPro technology mean fewer infected PCs to fix and less classroom downtime.

Increase the positive impact of technology in the classroom. With more uptime and greater performance, PCs with Intel vPro technology maximize the effect of PCs on learning and teaching experiences in both computer labs and individual classrooms. Students gain new learning experiences, teachers enjoy great teaching tools, and your cost to deliver these benefits is reduced.

Advanced Intel vPro Technology Makes it Work

Intel vPro technology is Intel's premiere business desktop PC technology for enhanced security, superior manageability and energy-efficient performance. PCs with Intel vPro technology allow you to free up critical resources – both dollars and people – for use elsewhere.

Built-in manageability that changes your PC management landscape. Intel's hardware-based management technology lowers your IT management costs and significantly improves IT efficiency. The advanced capabilities of Intel vPro technology are supported by all leading vendors of PC management consoles.



Remote diagnostics and repair. Utilizing Intel vPro technology, you can remotely boot, troubleshoot, repair and restore PCs – regardless of their power state or OS condition. Remote booting can also be done using a good image on an IT management drive, so diagnostic and remote-control software can be used immediately. Problem resolution is accelerated and costs are reduced. And since system configuration information is always available and up-to-date, when a technician visit is needed they can be dispatched with the right parts the first time.

Automated remote asset management. Intel vPro technology also automates hardware and software inventories. Asset inventories, essential to efficient IT planning, become faster, more accurate and less expensive. These capabilities help you locate lost PCs, eliminate paying for unused software licenses, and identify configuration tampering before it causes problems.

Automated agent presence checking. With Intel vPro technology, your management tools can automatically check for the presence of security and management agents, ensuring that they are in place and preventing tampering or disabling. Configuration compliance can be monitored from the management console using system information stored in hardware where it's accessible even if the PC is powered down.

The advanced management capabilities of Intel vPro technology mean that your PC management tasks gain increased efficiency, speed and accuracy – all with fewer deskside or classroom visits.

Proactive security that better prevents attack and disruption. Intel vPro technology's hardware-enhanced security capabilities enable proactive protection for your PC assets that helps guard your IT infrastructure and ensure service continuity.

Automated security patches and updates. Security patches are deployed and kept up-to-date remotely, ensuring full compliance. Encrypted remote power-on and update capabilities give you full control and let you update PCs after hours, minimizing disruptions and ensuring rapid compliance.

Hardware-based isolation and recovery. Hardware-based filters examine inbound and outbound packets for viruses, providing more protection than software-based anti-virus tools. Off-the-shelf software can be used to set policy for individual filters, making implementation easy, and remediation can be performed using a secure channel isolated from the PC operating system.

The advanced security capabilities of Intel vPro technology mean that updates are distributed quickly and easily maintained; attacks are stopped before they reach the PC; problem PCs are isolated before they impact the network; and PC remediation is faster and less expensive.

Energy-efficient performance that powers today's and tomorrow's software. The exceptional performance and energy efficiency of PCs with Intel vPro technology enable a highly capable environment with excellent security and management functions, and provide the best foundation for Microsoft Windows Vista* and next-generation software suites.

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New levels of performance and energy efficiency from the most advanced microarchitecture for PCs. The revolutionary Intel® Core™ microarchitecture provides unprecedented performance while reducing power requirements. Features include Intel® Wide Dynamic Execution to execute more instructions per clock; Intel® Intelligent Power Capability to optimize runtime power consumption; Intel® Advanced Digital Media Boost to accelerate instruction performance; and Intel® Advanced Smart Cache to adapt mismatched loads between execution cores. These advances improve multitasking response and enable unobtrusive background services.

Dual-core performance with energy efficiency.

The Intel® Core™2 Duo processor delivers 40% more performance than previous-generation desktop processors.¹ This power enables Intel vPro technology's outstanding application performance and its security and manageability features. Extended multitasking capabilities give teachers and students a superior experience even with multiple applications open and security and management tasks running in the background. At the same time, the Intel Core 2 Duo processor's advanced energy efficiency lowers your power cost.

Ready for Microsoft Windows Vista Premium and other demanding 64-bit software. PCs with Intel vPro technology provide capabilities for a high-quality Microsoft Windows Vista experience, including 64-bit,

dual-core Intel Core 2 Duo processors for an incredibly responsive experience; Intel® dual-channel DDR2 memory for faster system responsiveness and support of 64-bit computing; and Intel® Graphics for the highest levels of the Windows Vista AERO experience. PCs with Intel vPro technology support the latest 64-bit operating systems and performance-enhanced 64-bit applications, while also running today's 32-bit software.

The advanced energy-efficient performance of Intel vPro technology means that your classroom PCs are ready to meet the growing demands of technology in the classroom while reducing overall costs.

Maximize Your Resources and Further Your Mission

By deploying PCs with Intel vPro technology into your installed base, you immediately begin to transform your PC fleet and immediately start enjoying greater efficiency, higher security and increased user satisfaction. The power of Intel vPro technology lets you further the educational mission while lowering your costs and improving your service levels.

For more information, contact your Intel representative or see our Web site at www.intel.com/business/vpro

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¹Intel® Active Management Technology requires the computer to have additional hardware and software, connection with a power source, and a network connection. Check with your PC manufacturer for details.

¹Performance based on SPECint*_rate_base2000 (2 copies) and energy efficiency based on Thermal Design Power (TDP), comparing Intel® Core™2 Duo processor E6700 to Intel® Pentium® D processor 960. Actual performance may vary. See www.intel.com/performance for more information.

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