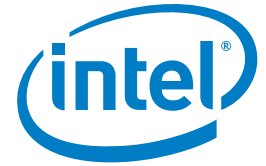


## CASE STUDY

### Intel® Solid-State Drives and Intel® Anti-Theft Technology

Performance: Security and Manageability



# Enhancing academic mobility

Intel® Solid-State Drives and Intel® Anti-Theft Technology help Grove City College improve tablet performance and increase data security

Dedicated to using technology to enhance the academic experience, Pennsylvania's Grove City College has been providing all incoming freshmen with laptop computers for more than 15 years. To reduce hard drive failures that can halt productivity, and to minimize the impact of theft, the school's IT group distributed Intel® Core™ i7 vPro™ processor-based HP EliteBook\* tablet computers with Intel® Solid-State Drives and Intel® Anti-Theft Technology. The Intel Solid-State Drives cut system imaging time in half and could reduce drive failures by 90 percent. Intel Anti-Theft Technology helps the IT group prevent information from falling into the wrong hands.



## CHALLENGES

- **Reduce hardware failures.** Minimize hard drive failures that can interrupt student and faculty productivity and strain IT support resources.
- **Increase performance.** Accelerate system imaging for IT staff while reducing boot time and increasing application performance for students and professors.
- **Secure information.** Prevent unauthorized access to sensitive information when laptops are lost or stolen, and recover assets when possible.

## SOLUTION

- **HP EliteBook\* tablets with Intel® Solid-State Drives and Intel® Anti-Theft Technology.** Grove City College deployed 750 HP EliteBook tablet computers equipped with Intel Solid-State Drives and using the Intel Anti-Theft Technology built into the Intel® Core™ i7 vPro™ processors.

## IMPACT

- **Improved productivity.** The IT group expects to decrease hard drive failures by 90 percent, allowing students and faculty to remain productive and reducing the time the IT group spends on repairs.
- **Better performance.** Students and faculty can boot up faster and achieve outstanding application performance using Intel Solid-State Drives and Intel Core i7 vPro processors.
- **Faster deployment.** Using Intel Solid-State Drives, the Grove City IT group can image and re-image tablets in half the time required for systems with hard disk drives.
- **Protected information.** By using Intel Anti-Theft Technology with the Absolute Software Computrace\* solution, Grove City's IT group can lock down lost or stolen computers and recover assets.



"[T]he tablets arrived only two weeks before students. Fortunately, the performance of the Intel® Solid-State Drives enabled us to image all 750 tablets in just two days. We had all systems ready in time, and we didn't have to spend the summer loading software."

– Vincent DiStasi,  
Chief Information Officer,  
Grove City College

Introduced in 1994, Grove City College's laptop program places new computers in the hands of all incoming freshmen. The program helps prepare students for the professional world, ensures equal access to technology across the student population, and enables professors to use innovative, technology-based approaches to learning. For several years, the IT group has deployed lightweight, easy-to-use tablets to improve student mobility. Today, students use tablets to take handwritten notes in lectures, collect data in science labs, write papers in

the library, and communicate with professors from their dorm rooms. Professors receive tablets too, which they use for everything from delivering presentations to managing high-performance computing workloads.

Issuing highly portable systems enhances mobility but also increases the risk of loss and theft. "This is a safe campus, but computer theft rose when we started offering tablets," says Vincent DiStasi, chief information officer and associate professor of chemistry at Grove City College. "In the event of a theft,

# Intel® Solid-State Drives Reduce Failures

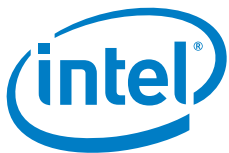
we needed to prevent unauthorized users from accessing sensitive data, such as a student's personal information or a professor's grading chart."

The school also wanted to minimize the time and resources spent servicing tablets. "Students can be rough with tablets, and we frequently saw hard disk drive failures," says DiStasi. "When a drive fails, it can be devastating to the user. We needed to reduce those problems and the time spent on repairs."

## Grove City expects to reduce failures by 90 percent with Intel® Solid-State Drives

Having deployed Intel® processor-based HP systems to students for several years, the Grove City IT group had a strong relationship with Intel. The Intel team introduced Grove City to the potential benefits of using solid-state drives, and based on those discussions, the school selected HP EliteBook\* 2740p tablets with Intel® X18-M Mainstream SATA Solid-State Drives for the new freshman class. Equipped with Intel® Core™ i7 vPro™ processors, the tablets run the Microsoft Windows 7\* operating system and are loaded with a range of applications, including Microsoft Office\* software. "We saw an important opportunity to reduce student frustration and decrease our support costs by moving to Intel Solid-State Drives," says DiStasi.

Using solid-state drives should improve tablet durability, even in the hands of active undergraduates. "We experienced a failure rate of approximately five percent for the previous tablets," says DiStasi. "With Intel Solid-State Drives, we anticipate failure rates will be as low as .5 percent over the year. Students and faculty will be less likely to lose data or suffer downtime. Fewer failures also mean that our staff can spend less time servicing tablets and more time on other projects."



## Increased performance cuts system imaging time in half

By delivering better performance than traditional hard disk drives, Intel Solid-State Drives accelerate system imaging. "In the past, it took an hour and a half to load each system image," says DiStasi. "Now we can load the image in less than 45 minutes. When we are re-imaging systems after repairs, we can return systems to students and faculty much faster."

Accelerated imaging helped the IT group prepare the new fleet of tablets in record time. "We usually have all summer to image systems, but this year, the tablets arrived only two weeks before students," says DiStasi. "Fortunately, the performance of the Intel Solid-State Drives enabled us to image all 750 tablets in just two days. We had all systems ready in time, and we didn't have to spend the summer loading software."

For students and faculty, the drives work with the Intel Core i7 vPro processors to deliver outstanding application performance. "Using the Windows Experience Index to measure performance, the hard drives and processors deliver scores on par with some workstations. Users can achieve very strong performance on a full range of applications," says DiStasi. "The drives also save users time. With traditional hard disk drives, it might take a machine up to five minutes to boot. With Intel Solid-State Drives, it takes only 12 seconds to reach the login screen. Faculty members avoid wasting precious class time, and students are ready to take notes right away."

## Intel® Anti-Theft Technology locks down tablets

To protect information, the Grove City team capitalizes on the Intel® Anti-Theft Technology (Intel® AT) available with the Intel Core i7 vPro processors in conjunction with the Absolute Software Computrace\* solution. If a tablet is lost or stolen, the IT group can issue a "poison pill" that prevents the tablet from booting. The Absolute theft recovery team can then pinpoint the computer's location and work with the police to get it back.

## SPOTLIGHT ON GROVE CITY COLLEGE

Founded in 1876, northwest Pennsylvania's Grove City College is a Christian liberal arts school that offers degrees in a full range of fields, including business, education, and the sciences. The school has consistently earned praise for the value of its education by *U.S. News & World Report*, *The Princeton Review*, and other organizations.

"Intel Anti-Theft Technology offers us a simple and effective way to protect assets and secure information," says DiStasi. "It just makes sense to take full advantage of the capabilities that are built into the Intel processors."

The new approach to protecting tablets may be deterring theft. "We widely publicized these features when we rolled them out," says DiStasi. "We typically have more than 10 tablet thefts per year, but in the three months since we started using Intel Anti-Theft Technology, we have had zero."

## Intel® vPro™ technology streamlines management for mobile computing

Looking ahead, the Grove City IT group is planning to activate additional processor capabilities, including Intel® vPro™ technology. "Intel vPro technology will allow us to update systems remotely, so all students and faculty can start accessing the latest software right away, wherever they are," says DiStasi. "All of these capabilities help us deliver the most robust and reliable mobile computing experience possible."

**Security and manageability.** Protect information, lower operating costs, and improve productivity through built-in robust security and manageability.

Find the Intel® Solid-State Drive solution that is right for your business. Contact your Intel representative or visit [www.intel.com/go/ssd](http://www.intel.com/go/ssd) for product information.

To learn about other business solutions based on Intel® Solid-State Drives and Intel® Anti-Theft Technology, visit the Reference Room at [www.intel.com/references/ecm](http://www.intel.com/references/ecm).

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