

VISIBILITY EQUALS MONEY SAVED

How educational institutions can reduce costs and increase security through web-based IT asset management, theft deterrence and computer theft recovery.



In education, the incorporation of computers is becoming progressively more prevalent — school districts, colleges and universities are increasingly relying on mobile computers to enhance teaching and learning. This, however, introduces new challenges for IT staff: They must manage mobile computers cost effectively and reduce the risk of missing laptops, whether from theft, loss or users forgetting to return them.

According to the Ponemon Institute, 12,000 laptops are lost in U.S. airports each week, and two-thirds of them are never returned.¹ Additionally, laptop theft accounted for 42 percent of reported security attacks, according to CSI, the 13th Annual Computer Crime and Security Survey, 2008.

Because the repercussions of lost and stolen laptops are so severe — a single lost laptop can cost an average of \$49,000 when you factor in multiple factors including data breaches² — mitigating these effects is of the utmost importance.

In the education environment, not only do these situations hurt an already crippled budget, but they also put students, faculty and staff at risk. This crippled budget, coupled with necessary increased data security regulations, means that schools, colleges and universities are facing the perfect storm for IT.

Given these statistics and knowledge that such a storm is imminent, why should educational institutions — whose pocketbooks are already hurting — sit back and lose even more money in the form of technology?

They shouldn't, and this storm is an avoidable one: It's as simple as installing special software on the machines that districts and universities wish to protect.

COST SAVINGS BY DESIGN

Educational institutions should be looking for IT asset management, data deletion and theft recovery solutions — ideally rolled into one. A combined solution can save countless districts, colleges and universities — as well as students — hundreds of thousands of dollars.

Absolute[®] Software offers a software-as-a-Service (SaaS) solution called Computrace[®] that includes IT asset management, remote data delete capability and theft recovery. One of the unique features of Computrace is that educational institutions gain visibility into their computers on or off the school network — even after theft. This visibility equals time and money saved.

"Most educational facilities have a set budget, and they don't have extra money available to replace devices that go missing," said Pam Seale, Product Marketing Manager at Absolute. "They don't have a magic pot of money that they can go back to for replacing devices should they go missing or be stolen."

Computrace is installed on each device, but IT manages and secures them via the web. This method of delivering the software is referred to as SaaS, and provides users with IT asset management, the ability to remotely delete data from computers, and a



Return on Investment

Typical of many larger districts, Kent School District's funding is achieved through a very public process. Every four years, the district, in Kent, Wash., puts forward a detailed plan outlining planned technology expenditure. The plan is then reviewed and voted on at the community level, and district residents are responsible for funding as a portion of their annual property taxes.

"As a publicly-funded district, we are required to physically touch each computer once annually as part of state regulatory compliance procedure," says the district's Executive Director of Information Technology Thuan Nguyen. "It is so important that we can demonstrate accountability for the funds we receive from the community. We also need to plan for and refresh 2,500 – 3,000 computers each summer. This process was incredibly tedious. Before Computrace, we would assign 10 people to sleuth out the location of all of our computers over a three month period."

Over the course of its annual notebook computer audit, Kent School District's IT staff struggled to locate computers locked in filing cabinets, taken home by students and a host of other backwaters mobile computers can fall into. "We literally had 10 people with barcode scanners attempting to find 12,000 computers. It was a great effort. With Computrace, we always know where our computers are. What was once a three-month process is now as simple as running a five-minute report that is more than 99 percent accurate. That, is accountability."

communication strategy with all computers in the group. Absolute actually does the operations work on their end — the daily technical operation; the maintenance and support for the servers; and should a device be stolen, Absolute also provides recovery of the device on which the software is installed.

This SaaS model saves education institutions money in that it doesn't require any infrastructure investment, nor do users have to purchase additional servers or hire additional staff to support it.

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“Our services are based on a piece of software we call the Computrace Agent — the small piece of software that is activated when you purchase a subscription from us, a license, if you will,” said Carol Johnston, Senior Product Manager at Absolute. “It is similar to how you purchase anti-virus— you pay a yearly subscription for the service. When you install and activate the agent on the laptop, it's programmed to contact a hosted Monitoring Center and report information about the computer or mobile device.”

IT administrators can log in to the secure Absolute Customer Center, which is a web-based console. In the Customer Center, IT can run automated reports to identify hardware and software changes, see the location of their devices, delete data from devices remotely, and report a theft to the Absolute Theft Recovery Team.

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Education, whether at the university or K-12 level, is always strapped for cash. Although the American Recovery and Reinvestment Act of 2009, better known as the stimulus bill, gives education a boost, it's not enough. Education institutions will continue feeling the pinch — but the solutions from Absolute can help.

Take the Surrey School District in British Columbia, for example: The district keeps track of its 12,000 desktop computers and 800 laptop computers, which are dispersed throughout its 99 elementary schools, 18 secondary schools and six learning centers. Before Computrace, the district's Director of Information Technology Dan Turner and his team had to physically touch every computer to perform inventory checks — an extremely time-consuming and tedious process that cost money in the form of hours worked.

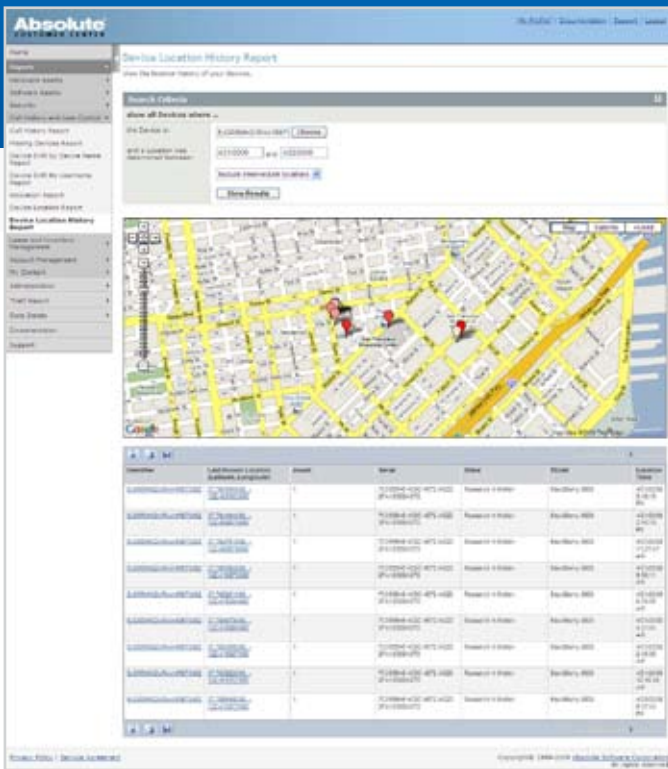
But after implementing Computrace, the entire process is quick and smooth. “It has enabled us to automate processes that were labor-intensive and inefficient,” Turner said, adding that the solution does a few other helpful things as well.

“We now use [it] to verify software license compliance on each machine, perform lifecycle management and execute our annual ‘true up,’ which is essentially an inventory count of CPU levels, base bar and licensing,” he said. “It helps keep us onside with software compliance regulations, thus preventing us from having to pay fines.”

MANAGE YOUR ASSETS

There's something to be said for always knowing where your assets are and whether they've been tampered with. The IT asset management features from Absolute tackle this with ease: They allow the group administrator to track the location of all computers in the group — or a single computer, for that matter — as well as hardware and software changes on the machine. And the faster





On the Move

In a case where a computer is missing, but isn't likely stolen, Computrace customers can use Wi-Fi or GPS to track their assets on a map. IT managers can pinpoint on a map where the laptop is located, and contact the teacher or user who has forgotten to return the machine. If they discover that the computer is in fact stolen, they can engage the Absolute Theft Recovery Team.

they learn that a laptop is lost, the average costs associate with that loss goes down.³

When the computer owner buys a license and activates Computrace, the computer calls into the Monitoring Center on a regular basis and sets up an exchange of information, including an inventory of its physical components, software and location.

"A lot of our education customers use it as inventory asset control, because they can log in to a secure website and manage anywhere from one to 100,000 computers or more," said Seale. "You have a complete inventory record and the software will report in regularly. And, if there are any changes in the software or hardware, it will record those changes."

IT is also able to define criteria to receive automated alerts. "If a school has a policy where they don't want people to install certain software, such as iTunes or Skype, then Computrace can alert the administrator if that happens," Seale said, "They can tell whether or not the users are in compliance."

Computrace also reports in the device IP address and the date and time it called, providing reassurance that the device is in constant communication with the Monitoring Center.

In Washington state, for example, the Kent School District conducts an annual notebook computer audit. In the past, the IT

staff struggled to locate computers locked in filing cabinets and taken home by students. During this audit, 10 people with barcode scanners were attempting to find 12,000 computers.

"As a publicly-funded district, we are required to physically touch each computer once annually as part of state regulatory compliance procedure," said Thuan Nguyen, the district's Executive Director of IT. "It is so important that we can demonstrate accountability for the funds we receive from the community."

The district also had to plan for and refresh 2,500 to 3,000 computers each summer, he said, noting that the process was incredibly tedious: Ten people had to seek out the locations of all district-owned computers over a three-month period. To get an understanding of how other large districts managed their notebook computers, Nguyen and his team toured a few districts.

"As we toured other districts, we quickly learned that notebook computers posed two huge challenges: theft deterrence and IT asset management," he said. "Essentially, they told us, 'You need to know where they are and stop tampering and theft.' Then, our computer manufacturer recommended that we look at Computrace to help with this."

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Now, with Computrace, Kent School District's IT staff always knows where the computers are — the previous three-month process is now completed by running a five-minute report.

Not only does this particular solution save money by recovering lost or stolen assets, it also saves money in the form of labor: Districts and universities will likely see less overtime because employees can spend the time previously used on IT management to do other projects.

MISSION: ASSET RECOVERY

From 2006-2007, Safeware Insurance saw a 29 percent increase in theft claims, due in large part to the growing use of laptops and portable electronics in the classroom and among business professionals, according to the company.⁴

Not surprising, given the state of our economy, is the study's prediction of a 278 percent increase in theft occurrences over the 2007-2008 claim period. And as the recession continues, it is likely that theft will increase dramatically as it has in past recessions.

Colorado State University saw itself as part of this increase in theft when numerous tablet computers, monitors and camera equipment were stolen over a two-year period. The university, however, avoided severe loss simply because it had used this SaaS: a small price to pay for such a big return.



Because Computrace was on the stolen computers, the Absolute Theft Recovery Team compiled enough critical information for the University Police Department to track the assets down, leading to the recovery of more than \$40,000 worth of stolen goods.

According to Detective Adam Smith of the Colorado State University Police Department, it was "the biggest equipment bust in the history of the department."

This was made possible because of the way the Absolute solutions works: After a computer has been reported stolen, Computrace enables the Absolute Theft Recovery Team to track the computer. With the customer's express permission, the Recovery Team deploys tools that enable them to gather evidence. The recovery tools' functionality is based on the premise of Windows Remote Desktop or Apple Remote: the team can access the machine from another location. The recovery team is

then able to gather information to help identify the location and the unauthorized user, so that law enforcement can procure warrants, recover the stolen computer and prosecute thieves.

In the odd chance that the thief reinstalls the operating system — thus wiping the services clean — Absolute has a backup plan. Instead of installing the software solely on the hard drive, most major computer manufacturers embed a small piece of the Computrace code into each machine's firmware. This is possible because of partnerships between Absolute and the world's top computer manufacturers.

Even if a person replaced the hard drive or reinstalled the operating system, the firmware code is still active — and it recognizes Computrace is not on the hard drive. It will then re-establish its presence on the hard drive.

"We call that persistence," says Lyle Singular, Vice President of Recovery Services at Absolute. "The key is that you now have the concept of persistent communication. As long as someone is getting on the Internet with this thing, it's going to talk to us."

And that's exactly what happened at Mesquite High School in Mesquite, Texas, when a business teacher discovered his classroom's laptop cart — containing eight laptop computers worth more than \$11,000 — was stolen overnight.

"A similar thing happened over a year ago: Several laptops were stolen from an Instructional Technology mobile lab," said Judy Rollins, Director of Career and Technology at Mesquite Independent School District (ISD). "So when it came time to purchase 114 new laptops for the Mesquite ISD last summer, I was advised not to purchase any without some sort of tracking and recovery solution in place."

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She chose Computrace. So when the eight laptops were stolen, she called the Absolute Theft Recovery Team, which flagged the computers as stolen began their investigation.

Three weeks later, two of the laptops silently contacted the Absolute Monitoring Center from the same IP address.



During the time a laptop is missing, Computrace extracts useful and identifying information in order to gain a search warrant, Singular said.

“With the tools we can extract information from places we know it is going to occur” he said, adding “By doing that, the Absolute investigators have an opportunity to pull in files and key entries that would identify a person’s name or address, and start coordinating information.”

“No one piece of information is completely conclusive unless it’s referenced to other pieces of information,” Singular said. “This is called sourcing or vetting, and it must be done in order to take the information back to the courts and convince the courts it’s accurate enough to get a search warrant.”

Singular also emphasized that these tools only go into effect if the customer has done two things: reported the crime to the authorities and reported the crime to Absolute.

“When it’s reported to us, we move that file or that system out of our customer database, and into a very tightly managed investigative file management system, so it’s completely locked down.”

Using these techniques in the Mesquite ISD case, the Theft Recovery Team logged the precise details and notified Mesquite Police Department Detective John Gilbert, who sent a subpoena to the Internet service provider used by the alleged thieves, and obtained all the information he needed to write up a search warrant. He served the warrant the next day, resulting in eight stolen laptops — and two suspects in custody. Using Computrace, the Mesquite Police Department recovered all eight laptops in less than one month.

“We have a guarantee against the services that we provide,” Johnston said, adding that Absolute is a software and service

company that provides not only the monitoring software, but also the augmented services, such as theft recovery and data delete protection.

“So in the event that a higher education or K-12 institution has a lost a device, they can call us up and request that we recover that device on their behalf or wipe all the information remotely off that device. And if we are unable to do so, and they have purchased the guarantee of that service, we provide them with a monetary payout.”

TEAMS AND PARTNERSHIPS

One of the key aspects in understanding the Absolute recovery services component, Singular said, is to recognize that every situation can be totally different. He said that it’s one thing for your laptop to be stolen after leaving it on a table at Starbucks; it’s quite another when it’s taken from a house, car or business.

One of the biggest value points with Computrace is that, in finding stolen machines and returning them to their rightful owners, it’s also identifying thieves and burglars, and getting them off the streets.

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Critical for this task are the partnerships Absolute forms with law enforcement agencies. The Absolute Theft Recovery Team is a group largely made up of former detectives, and their investigative experience cannot be understated in terms of using information sent from stolen computers as evidence to recover them. Because of this expertise, forming the partnerships and understanding law enforcement needs come naturally.

“When you turn to the law enforcement community as a partner in all of this, you have to understand their position on a lot of things,” Singular, a 25-year veteran of Canada’s Royal Canadian Mounted Police, said. “You have to be able to manage and negotiate the constraints they’re dealing with, and how you can effectively deal with this. But more importantly, how can you make a law enforcement officer more effective?”

Absolute wants to optimize the opportunity for law enforcement to gain the most benefit from its service, he said, and to do that, Absolute recognizes that law enforcement must make difficult decisions with their resources.

"They don't have the time and resources to chase things down, as people would like to think that they do," Singular said. "It really becomes an act of working with law enforcement to put it into their perspective so they can be engaged, and more importantly, we help them to learn a lot of the things that we're learning. And then bring this thing to a successful conclusion."

COMMUNICATING FROM AFAR

Messaging is currently an underused aspect of Absolute's solution, but is being enhanced and improved so customers can reap its benefits. Customers can send a single, standard, pre-written message to end users

For example, if it is the end of the school year and a computer needs to be returned to the school, IT can send a stern warning that the computer must be returned. "It would simply be something like, 'This device has been reported as lost or stolen by ABC School District, please return immediately,'" Seale said, adding that the customer would trigger that message from the Absolute Customer Center.

If the culprit hasn't returned the device as promptly as the customer would like, they can send another message: "We're serious, return this device," for example.

Alternatively, this function can also be used to help save IT time. Instead of physically having to contact users informing them that maintenance is needed on the device, they can use this messaging functionality to communicate with end users who may be on-the-go or traditionally not easy to contact. As soon as they log in to their computer and Computrace contacts the Monitoring Center, they will receive a message on screen that they need to contact IT.

REGULATORY COMPLIANCE

Another concern for universities and computer owners is the security of their personal information or confidential records should their property be stolen. With Computrace, these private materials can be deleted remotely.

This was the problem at William Penn University, in Oskaloosa, Iowa, whose College for Working Adults (CWA) provided each

member with a wireless-enabled laptop for continuous, hands-on computer use.

Although this laptop program was mostly a success, it was seeing computers disappear: Laptops were either lost or stolen, or students were dropping out and not returning their laptops to the university.

After installing Computrace by Absolute Software on program computers, Dan Morgan, Director of Information Services, and Curtis Gomes, CWA IT supervisor, can perform any number of reports and operations remotely, including, deleting the My Documents folder and removing the operating system, which effectively disables the computer.

"We've only had to do this a few times, however, because word got out pretty quickly that we could do this," Gomes said, "this particular problem has all but disappeared."

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The ability to know where university assets are at all times — to find them even after they've been stolen and delete all sensitive items from them — provides a sense of security for educational institutions large and small that loan laptops to students, faculty and staff.

With Computrace, districts and universities have visibility into where these computers are; they can assess whether the devices' hardware or software has been tampered with; and with access to the Theft Recovery Team, they are much more likely to recover assets that become lost or are stolen.

In today's perfect storm of education computing, the low up-front costs, reduced IT infrastructure requirements and simple operation of Absolute Software's SaaS solutions — all of which have proven successful in the education environment — are well worth investigating

End notes

1. "Airport Insecurity: The Case of Lost Laptops," Ponemon Institute, 2008
2. "The Cost of a Lost Laptop," The Ponemon Institute, April 2009
3. "The Cost of a Lost Laptop," The Ponemon Institute, April 2009
4. "Safeware Insurance Releases Computer and Portable Electronics Loss Statistics," Safeware Insurance, September 2008

Underwritten by

Absolute[®]Software

Absolute[®] Software is a leader in tracking, managing and securing mobile devices for better data protection, easier IT asset management and managed computer theft recovery. With its Computrace[®] and Computrace[®] LoJack[®] for Laptops[™] solutions, large enterprises, small business and individuals can protect their computing devices and the data on them.

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