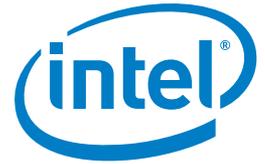**CASE STUDY**
Intel® Core™ i5 vPro™ processors
Enterprise Client
Mobility in the Enterprise

(intel)

Streamlining remote client management

Intel® vPro™ technology helps Pepperdine University enhance the efficiency of client system management and eliminate time-consuming deskside visits

For the IT group supporting Pepperdine University's Graduate School of Education and Psychology, managing the fleet of nearly 300 client systems used by faculty, staff, and graduate assistants had become too time-consuming and resource-intensive. When it was time to refresh client systems, the IT group selected laptops and desktops equipped with Intel® Core™ i5 vPro™ processors. By using Intel vPro technology with Symantec Altiris Client Management Suite*, the IT group has streamlined software diagnostics, patch and software deployment, asset discovery, and security, eliminating software-related deskside visits while providing outstanding performance to users.

CHALLENGES

- **Reduce deskside visits.** Improve the efficiency of client system management by resolving software issues, deploying patches and software, and tracking assets while avoiding travel to user locations across multiple campuses.
- **Improve security.** Halt the spread of viruses and protect confidential information stored on client systems.
- **Enhance client performance.** Provide faculty, staff, and graduate assistants with the performance they need for processor-intensive applications and multitasking.

SOLUTION

- **HP client systems with Intel® Core™ i5 vPro™ processors.** Pepperdine refreshed its client fleet with HP desktop and laptop systems equipped with Intel Core i5 vPro processors. The IT group manages systems with Intel® vPro™ technology capabilities and Symantec Altiris Client Management Suite software.

IMPACT

- **Less time on the road.** Remote management capabilities have helped the IT group eliminate time-consuming deskside visits for asset discovery, patch management, software delivery, software diagnostics, and security functions while decreasing user downtime.
- **Tighter security.** Intel vPro technology helps IT stop viruses through remote management. Intel® Advanced Encryption Standard New Instructions (Intel® AES-NI) technology helps sustain system performance while encrypting data.
- **Enhanced performance.** Moving to the latest Intel processors allows users to achieve outstanding performance across a full range of applications required for teaching, research, administration, and more.

PEPPERDINE UNIVERSITY
Graduate School of Education and Psychology

"With Intel® vPro™ technology, I can access the system and start to resolve problems even if the operating system is completely unresponsive....I can have users back up and running much faster than if I had to make a deskside visit."

– Ramy Rizkallah,
Program Manager,
Graduate School of
Education and Psychology,
Pepperdine University

The faculty, staff, and students of Pepperdine University's Graduate School of Education and Psychology rely on computer technology to create engaging classroom presentations, share class information, communicate with each other, complete student projects, access student information databases, and more. Despite the importance of client systems in the department, the IT group responsible for supporting the hundreds of school-owned desktops and laptops is small—just one program manager is tasked with managing nearly 300 systems spread across five campuses.

Until recently, even routine client management tasks took a large amount of time. "Tracking asset inventory, deploying new patches, installing software, and helping faculty and staff resolve problems often required deskside visits, which meant I was spending hours driving to and from different campuses," says Ramy Rizkallah, program manager for the Graduate School of Education and Psychology. "We needed a remote management solution that would enable me to conduct routine tasks and resolve problems quickly, without having to travel to a user's deskside."

Implementing remote client management with Intel® vPro™ technology

In addition to improving desktop management, the IT group also wanted to increase client performance. "As users do more and more with their systems, they need desktops and laptops that will let them run multiple, processor-intensive applications at the same time," says Rizkallah.

Enhancing client security was another priority. "We need ways to ensure confidential data is protected if a system is lost or stolen," says Rizkallah. "At the same time, we have to protect the network from viruses. In the past, we asked the user to unplug the Ethernet cable, but that meant I had no remote access to the system to correct the problem. We needed a new approach."

Refreshing clients with Intel Core vPro processors

When it was time to refresh client systems, the IT group selected HP Compaq* desktops and HP EliteBook* notebooks—all equipped with Intel Core i5 vPro processors. "The Intel Core i5 vPro processors deliver excellent performance for a wide range of applications. Whether a Web developer is running Adobe Creative Suite* or an admissions officer has 10 browser windows open while using an Oracle PeopleSoft* interface, they have the performance they need," says Rizkallah.

The IT group uses Intel vPro technology in conjunction with Symantec Altiris Client Management Suite software for patch management, asset inventory, software diagnostics, software delivery, and network security. "We were very eager to take advantage of the remote management capabilities offered with Intel vPro technology and the Symantec software," says Rizkallah. "For us, the combination of these technologies offers a completely new approach to client system management."

Eliminating deskside visits

The new remote management capabilities have helped eliminate deskside visits for tasks such as asset management. "It used to take months of in-person visits to collect asset information for all of our client systems," says Rizkallah. "Now I can locate serial numbers remotely and generate a report with just a few clicks."

Patch management is more efficient and more successful. "In the past, I would have to install patches and updates for a variety of software applications in person. It was particularly difficult to complete patch deployments since faculty members travel frequently," says Rizkallah. "Now I can identify the systems that need patches and install those patches from my office. Traveling faculty members get updates when they connect to the network. With Intel vPro technology and Symantec software, I can be sure that everyone is receiving the patches they need."

Rizkallah also can conduct in-depth diagnostics remotely. "With Intel vPro technology, I can access the system and start to resolve problems even if the operating system is completely unresponsive," says Rizkallah. "Because I can connect with client systems remotely, I can solve problems no matter where the system and I are located. I can have users back up and running much faster than if I had to make a deskside visit."

The remote management capabilities also save Rizkallah a tremendous amount of time. "A single deskside visit might have taken five or six hours if I had to drive across Los Angeles to get to another campus," says Rizkallah. "I don't have to do that anymore. Since we implemented Intel vPro technology with the Symantec software, I can complete nearly all of my management tasks without having to leave my office. As a result, I can spend more time working on other projects."

Tightening security with Intel technologies

With Intel vPro technology and Symantec software, Rizkallah no longer has to ask users to unplug their Ethernet cables to prevent a virus from reaching the network. "I can use the network filtering capabilities available with Intel vPro technology to stop traffic from flowing from the client to the network without shutting off administrative access to the machine," explains Rizkallah. "I can then run the virus update and reactivate the network connection while avoiding unplugging anything from the computer."

To help protect data from theft or loss, the IT group is using Intel AES-NI technology built into the Intel processors to sustain client system performance while encrypting data with Symantec PGP* software. "Performance is a real concern when you use any sort of encryption solution," says Rizkallah. "By using Intel processors with Intel AES-NI technology, we can have systems encrypt data in the background without users feeling the performance impact. We can protect their data, and they don't have to stop working."

Expanding remote management capabilities

After achieving such positive results in the Graduate School of Education and Psychology with the client refresh, the department's IT group is encouraging the entire university to adopt Intel vPro technology with Symantec software. "These are such powerful tools, we could envision managing the university's entire fleet of client systems with just a single person," says Rizkallah. "In the end, we could deliver better services to faculty, staff, and students while significantly improving IT efficiency."

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