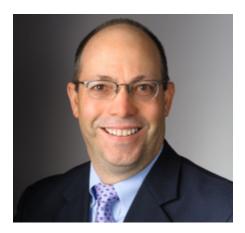(intel®)

Look Inside.™

Streamlining Support of Laptops with Intel® vPro™ Technology

Cerner accelerates remote fixes, improves software patching, and helps sustain productivity for more than 15,000 global associates

A leading provider of technology solutions for healthcare, Cerner Corporation caters to a wide range of clients, from hospitals, pharmacies, and physician practices to research organizations and extended-care service providers. The company's IT group needed to improve management, support, and security for more than 15,000 laptops that Cerner associates around the globe use to help healthcare leaders solve critical challenges. The IT team decided to activate the Intel® vPro™ technology built into the Intel® Core™ vPro™ processors used by its fleet of Lenovo* laptops and mobile workstations. Using Intel vPro technology with Microsoft System Center Configuration Manager* (SCCM*) to manage PCs remotely, the IT group has accelerated diagnostics and software fixes, enabled more complete software patching and updating, and ultimately helped associates maintain productivity.

Challenges

- **Speed global support services.** Rapidly resolve software-related PC problems for associates working around the world.
- **Improve patching and upgrading.** Increase the percentage of laptops that receive patches and upgrades to help bolster security across the enterprise and boost associate productivity by providing the latest software.
- **Sustain productivity.** Help associates stay productive by avoiding the need to hand over computers to IT staff and wait several hours for repairs.

Solution

- **Lenovo computers with Intel Core i5 and i7 vPro processors.** The IT group activated Intel vPro technology across its fleet of Lenovo laptops and mobile workstations, including Lenovo ThinkPad* T, X, and W series. Administrators manage systems remotely with Intel vPro technology and Microsoft SCCM.

Technology Results

- **Fast problem resolution.** IT support staff can diagnose and mitigate problems quickly—even if the computer cannot be booted—using the remote Intel® KVM (keyboard, video, mouse) technology and out-of-band management capabilities of Intel vPro technology.
- **More complete patching and updating.** IT can now consistently patch and update nearly all of the laptops used by Cerner associates around the world, a significant improvement over its previous coverage.
- **Outstanding performance.** Intel Core i5 and i7 vPro processors deliver the performance and responsiveness needed for a wide range of applications.

Business Value

- **Tighter security, greater productivity.** With more complete software patching and updating, IT can protect sensitive data and keep the corporate network safe while helping to maximize productivity for end users and IT.
- **Less associate downtime.** Fewer associates now need to turn in computers for repairs. Many problems are resolved within minutes instead of the several hours it might have taken in the past.

"Now that we use Intel® vPro™ technology, associates no longer have to wait several hours or half a day for software problems to be repaired. We can often have a computer back up and running within an hour. Restoring productivity quickly is a huge benefit for our associates and our company."

– Bill Graff,
Senior Vice President,
Cerner Technology Services

"We provide laptops to more than 15,000 Cerner associates across every department of the enterprise, from corporate finance and human resources to consulting and software development," says Brian Hamilton, technology architect on the infrastructure architecture team at Cerner. "We have associates in the United States, the United Kingdom, India, and other countries around the world, but we provide our primary laptop support and management from a centralized location in the United States."

That centralized support and management model often made it difficult to diagnose and repair serious computer problems. "If a remote associate had a significant software issue and the laptop wouldn't boot, there was little that the centralized IT support team could do to help," says Hamilton. "The associate had to drop off the computer at the front service desk at their office and wait for the repair.

In some cases, it might have taken half a day. We wanted to provide more extensive remote support capabilities so we could reduce associate downtime."

The IT group used Microsoft SCCM to keep laptop software up to date, but patching and updating across a dispersed fleet of laptops was challenging. "With associates working in so many time zones, not every computer was available when we needed it to be," says Hamilton. "We needed a way to access systems even if they were offline so we could make sure all computers had the required security patches and software updates."

Activating Intel vPro Technology

For the Cerner IT group, it was an easy decision to activate Intel vPro technology. "We had been purchasing laptops equipped with Intel Core vPro processors for several years," says Hamilton. "It was time to capitalize on the capabilities of Intel vPro technology

to address our remote support and management challenges."

The activation project began in the lab. "We started by integrating Intel vPro technology with Microsoft SCCM, defining our workflows, testing the various laptop models that we have in the field, and then running a pilot program within our IT organization," says Hamilton. "With help from Intel, we were able to overcome some small obstacles we encountered along the way, and were ready to move from pilot to production quickly."

The IT group activated Intel vPro technology across a wide range of Lenovo ThinkPad laptop and mobile workstation models that associates use, including models from the ThinkPad T, X, and W series. Associates receive computers equipped with either Intel Core i5 vPro processors or Intel Core i7 vPro processors, depending on application requirements. "Intel Core processors provide the right combination of strong performance, energy efficiency, and manageability for our needs," says Hamilton. "At the same time, Intel offers an unmatched level of enterprise support."

Cerner utilized Intel® Setup and Configuration Software (Intel® SCS) to securely discover and provision clients with Intel vPro technology. Using Intel SCS helped Cerner to more quickly and easily configure client systems. Once the client systems were provisioned, information from those clients was seamlessly imported into Microsoft SCCM.

Cerner activated Intel vPro technology in stages, but the project was completed swiftly. "Within just three or four weeks, we activated approximately 14,000 of our computers," says Hamilton.

Intel® vPro™ technology enhances centralized management for a global PC fleet

Improving Remote Support and Reducing Downtime

Intel vPro technology helps the centralized IT support staff diagnose and resolve a full range of software problems remotely. "With Intel vPro technology's out-of-band management capabilities, our centralized support team can help solve software problems even when laptops are unbootable," says Hamilton. "We can also use hardware-assisted remote Intel KVM technology to help guide associates through fixes when problems are less serious."

Those capabilities help dramatically reduce downtime. "Now that we use Intel vPro technology, associates no longer have to wait several hours or half a day for software problems to be repaired," says Bill Graff, senior vice president of Cerner Technology Services. "We can often have a computer back up and running within an hour. Restoring productivity quickly is a huge benefit for our associates and our company."

Better remote support enhances IT efficiency and boosts associate satisfaction with IT services. "We can refocus some of the staff at the front desk to other tasks," says Hamilton. "And just as important, we can solve more problems with a single interaction, which our associates really appreciate."

Achieving More Complete Patching and Updating

Intel vPro technology is also helping improve coverage for software patches and updates. "We now have a much better picture of our patch coverage across the whole organization," says Hamilton. "And we can patch and update systems regardless of the power state."

The result is better patching coverage of the company's laptop fleet. "In the past, we had to be content with patching the majority of our laptops, but there was a sizeable percentage of our deployed laptop inventory unaccounted for," says Hamilton. "With Intel vPro technology, we are now close to full coverage. As a result, we can better protect laptops and our corporate network. By delivering the most up-to-date software to our associates, we can help boost productivity and eliminate the bugs and problems that interrupt work."

Exploring Additional Use Cases

Looking ahead, the Cerner IT group plans to explore additional use cases for technologies built into Intel Core vPro processors. "We are considering incorporating supplemental security capabilities, remote support for systems that aren't connected to our corporate network, remote booting capabilities, and more," says Graff. "We're confident that these Intel® technologies can continue to deliver significant value to IT, our associates, and the business."

Find the solution that's right for your organization. Contact your Intel representative, visit Intel's **Business Success Stories for IT Managers**, and check out **IT Center**, Intel's resource for the IT industry.

Lessons Learned

IT administrators need to choose a Transport Layer Security (TLS) certificate from one of several vendors as part of the process to activate Intel® vPro™ technology on remote PCs. The Cerner team learned that determining the right certificate early in the project is key. "Be sure you pick a certificate that will work across the entire fleet of PCs," says Brian Hamilton, technology architect at Cerner. "Understanding the certificate limitations of your PCs will help save time and effort down the road."

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