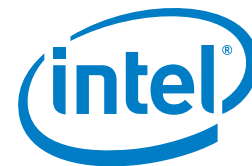


## CASE STUDY

### Intel® Core™ i5 and i7 vPro™ processors

Mobility in the Enterprise



# Driving safety and savings with PC refresh

Ohio Department of Transportation uses new PCs to modernize operations and save up to USD 5 million

With its budget and workforce shrinking, Ohio's Department of Transportation (ODOT) is using new PCs based on the Intel® Core™ i5 and i7 vPro™ processors to work more efficiently. ODOT CIO Spencer Wood says the department's recent refresh also enables IT to spend more time developing innovative applications. Wood estimates the refresh will generate lifetime savings of USD 2 to 5 million, and says the savings will help fund construction projects that produce jobs and promote economic growth.



"Our previous encryption package pretty much turned the old machines into bricks. Today, people don't even know their machine is encrypted. It just works, and our security exposure is reduced."

– Spencer Wood,  
CIO,  
Ohio Department of Transportation

## CHALLENGES

- **Do more with less.** ODOT's 2012 to 2013 budget is USD 4 million smaller than that of the last two years, and nearly 25 percent of ODOT workers are eligible to retire within two years. IT leaders want their technology investments to help the department reengineer workflows and improve operations.
- **Get more out of PCs.** Most of ODOT's PCs were up to seven years old. They lacked the performance to run newer operating systems and applications, had minimal multitasking capabilities due to single-core processors, and drained productivity from both end users and IT.

## SOLUTION

- **Wholesale PC refresh.** ODOT replaced approximately 3,550 of its base of 5,500 PCs with HP Compaq Elite\* PCs and HP ProBook\* laptops based on the Intel® Core™ i5 and i7 vPro™ processors and Microsoft Windows\* 7.

## IMPACT

- **Greater service to citizens and businesses.** ODOT employees can run advanced applications that help them manage Ohio's largest-ever construction project, keep traffic flowing smoothly, redesign accident-prone locations, maintain ODOT's vehicles, and more.
- **Higher productivity and efficiency.** With more responsive systems capable of true multitasking, employees can perform essential tasks more quickly. ODOT also reduced the number of hardware images, making it easier to keep the images up to date and reducing downtime if systems must be reimaged due to software corruption.
- **More robust security.** ODOT uses the Intel processors' hardware-accelerated encryption with Windows 7 BitLocker\* Drive Encryption and a Trusted Platform Module (TPM) to transparently protect sensitive information while avoiding the performance penalty of software-only solutions.
- **Cost savings.** ODOT's IT leaders say the refresh will produce lifetime savings of USD 2 to 5 million by eliminating duplicate PCs, reducing the number of software images, avoiding the need to buy third-party encryption software, and enabling employees to run advanced applications.
- **Greener state.** ODOT's newer PCs consume less power, contributing to a lower energy bill. Remote PC management will reduce IT's need to travel to distant sites for deskside remediation.

## IT as a Force Multiplier

ODOT is a forward-looking innovator that's determined to use transportation to promote economic growth despite budget constraints and a smaller workforce. "ODOT

will be downsizing quite significantly, so our only recourse is to work quicker, smarter, and better than we've ever worked before in a lean, more efficient and professional manner," Wood says. "We are



## ODOT is shifting technical-support funds to project development

looking at IT as a force multiplier that can help us reengineer our workflows, increase our efficiencies, and make each employee more productive. We're trying to drive cost out of our operations and inject it directly into roadway construction."

ODOT IT is conservative in its approach to spending. "We're never going to be bleeding edge, but we do like to deploy cutting-edge technology where it will add business value and have a strong return on investment," says Wally Renner, an ODOT infrastructure specialist.

ODOT's PC refresh is a good example. ODOT selected PCs based on Intel Core i5 and i7 vPro processors for their performance and capabilities such as Intel® Advanced Encryption Standard New Instructions (Intel® AES-NI), Intel vPro technology, and optional Intel® Anti-Theft Technology (Intel® AT). The IT team migrated to Microsoft Windows 7 and Office 2010 during the PC refresh, eliminating the need to manage dozens of separate images and bringing virtually all users onto a single, modern platform that could run the latest software. ODOT also reduced the number of PCs in its fleet by replacing multiple systems assigned to single users with a single, more powerful, more efficient system, thus saving on both capital cost and total cost of ownership (TCO).

### More Productive, Secure, and Strategic

The refresh produced immediate benefits for ODOT. "We were able to give our people a more capable machine and apply our

enterprise buying power to get a good price," Wood says. The new PCs run a wide range of performance-intensive applications at ODOT—everything from Microsoft Excel\* spreadsheets for 64-bit analysis of hundreds of thousands of data sets to Intergraph GeoMedia\* 3D for visual exploration of geospatial data.

Using diagnostics software on new Bluetooth\* technology-enabled laptops, a truck maintenance team has gained certification to perform warranty maintenance and repairs. "That process alone saves us a very significant amount on maintenance and towing costs and helps us keep our vehicles on the road," explains Jim Burns, IT resource manager at ODOT.

Wood estimates ODOT reduced costs an estimated 90 percent by deploying a new traffic management center on an Intel Core i7 vPro processor-based PC rather than a RISC-based workstation.

Everyday tasks run faster, improving employee productivity and satisfaction. "The old machines were so slow, people would have to plan their lunch breaks around when the virus scan was running," says Wood. "Now, they don't even know it's happening."

Using Intel AES-NI with Windows 7 BitLocker, ODOT enhances security and encryption performance and saves the cost of a third-party encryption application. "Our previous encryption package pretty much turned the old machines into bricks," says Wood. "Today, people don't even know their machine is encrypted. It just works, and our security exposure is reduced."

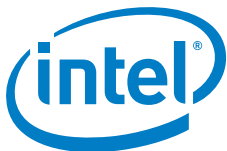
### SPOTLIGHT ON ODOT

ODOT is a visionary organization that fosters economic growth and personal travel by planning, building, and maintaining a safe, efficient, and accessible transportation system for Ohio. ODOT has approximately 5,600 employees and a budget of USD 5.6 billion for the 2012 to 2013 biennium. Ohio ranks seventh nationally in the number of licensed drivers (7.66 million).<sup>1</sup>

Moving forward, ODOT IT is working with Intel to use Intel vPro technology with Microsoft System Center Configuration Manager (SCCM) to better manage its PCs remotely. The department is also exploring the use of Intel AT to improve laptop security.

Besides enhancing productivity and efficiency across ODOT, the refresh lets IT contribute at a more strategic level. "If you're losing 1,500 people from an organization of 5,600, that's going to require some significant reengineering and redesign of how you work," Wood says. "As a result, we're getting new projects on an almost daily basis. The refresh is helping us free up some of our support budget. As tech support positions come free, we're reallocating that budget to bring in developers and move those positions toward value-added activities to the business."

Find a solution that is right for your organization. Contact your Intel representative or visit Intel's Business Success Stories for IT Managers at [www.intel.com/itcasestudies](http://www.intel.com/itcasestudies)



<sup>1</sup> [http://www.statemaster.com/graph/trn\\_lic\\_dri\\_tot\\_num-transportation-licensed-drivers-total-number](http://www.statemaster.com/graph/trn_lic_dri_tot_num-transportation-licensed-drivers-total-number)

Intel® AES-NI requires a computer system with an AES-NI enabled processor, as well as non-Intel software to execute the instructions in the correct sequence. AES-NI is available on select Intel® processors. For availability, consult your reseller or system manufacturer. For more information, see <http://software.intel.com/en-us/articles/intel-advanced-encryption-standard-instructions-aes-ni/>. No system can provide absolute security under all conditions. Intel® Anti-Theft Technology requires an enabled chipset, BIOS, firmware, and software, and a subscription with a capable service provider. Consult your system manufacturer and service provider for availability and functionality. Intel assumes no liability for lost or stolen data and/or systems or any other damages resulting thereof. For more information, visit <http://www.intel.com/go/anti-theft>.

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