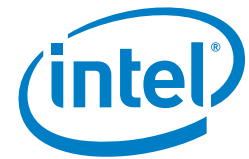


ROI Analysis

Intel® Core™2 Processor
with vPro™ Technology

Customer of CSK
SYSTEMS CORPORATION



Positive ROI of 100% with Reduced Carbon Emissions and Better Patching Using PCs with Intel® vPro™ Technology

CSK SYSTEMS CORPORATION (CSK), a large computer service provider in Japan, supports corporate customers in the areas of software development, facilities management, system integration, and other related services.¹ Recently, CSK helped deploy PCs with Intel® Core™2 Duo processors with vPro™ technology across a key customer's distributed sites to help the client improve information technology (IT) services and energy conservation. The CSK customer, also located in Japan, is a large service company. This customer has its own IT department, which maintains and manages the technology at over 20 sites where about 2,000 PCs are used for business productivity applications and customer services.¹

Concerned about rising IT costs and environmental issues, the service company set aggressive goals for improving patch management, reducing energy consumption, and reducing the company's carbon footprint. After learning about the "green" benefits of enabling better power management and the remote management capabilities of Intel® vPro™ technology, the service company asked CSK to replace their entire fleet of machines with PCs with Intel vPro technology.² The two companies then investigated the return on investment (ROI) delivered by the new PCs.

Since deploying the PCs with Intel vPro technology, the service company has already realized significant benefits. For example, prior to deploying the PCs with Intel vPro technology, the company installed patches only four times a year, and experienced a failure rate of 40% for patching.⁴ Now that they have the ability to remotely

and securely power up PCs anytime, they are no longer having to ask users to leave PCs powered up for off-hours work. The result is that the service company is now patching on a bi-monthly basis, faster, with less effort, and achieving a 97% saturation rate.³ About \$25,000 in savings have already been realized from the improved IT efficiencies in the first eight months after deploying the new PCs. The company has projected savings of more than \$133,000 over the next four years just from this one improved area.³ The service company also expects to save over \$61,000 in lower energy costs as a result of implementing remote power control and improved power management enabled by Intel vPro technology.³

TCO/ROI investigation

The service company's investigation was conducted in a distributed environment with more than 20 sites and approximately 2,000 desktop PCs with Intel vPro technology. Data was collected for patch deployment over an 8-month period.³ The data was analyzed to assess efficiency gain due to after-hours patch deployment. It also determined energy saving and CO₂ reduction by comparing PCs running idle throughout the weekend during a patch deployment cycle to PCs dynamically powered up and down just before and after patch installations. Data was then projected for 4 additional years to account for the 5-year PC refresh cycle, with the assumption that the number of PCs would grow approximately 2% per year. ROI was calculated conservatively, based only on the benefits of patch deployment and remote power control.

Key findings from TCO analysis

- **Positive ROI of 100% across 5 years** by deploying PCs with Intel® vPro™ technology to support patch management and improved power management.³
- **Break-even point achieved in 2.5 years.**³
- **Projected cumulative savings for the company of over \$190,000** over 5 years.³ CSK's customer is using the remote power-up capability to make sure all PCs are ready to receive patches. The service company is also saving on energy consumption by using Intel vPro technology to power up systems off-hours only when patching is needed, then using their management software to power PCs back down.³
- **Reduce CO₂ emissions by about 340,000 kg.**^{3,5}

Positive results

CSK's customer is pleased with the savings in service cost and energy consumption already being delivered by Intel vPro technology.

- Increase patch frequency from once per quarter to twice per month without increasing costs, and improve the success rate for patch deployment from 60% to 90%.³
- Reduce the yearly cost of patching by 85%, from \$15 per typical PC to \$2.20 per PC with Intel vPro technology.³

- Reduce power consumption by approximately 0.6 million KWh, and save approximately \$61,000 in energy costs.³

- Reduce CO₂ emissions by more than 340,000 kg – the equivalent of the annual CO₂ emission of 62 cars, or the annual CO₂ removal by 23,000 trees.^{3,5}

Based on the results of their investigation, the service company is looking forward to using the PCs with Intel vPro technology to realize additional benefits in improved IT services, reduced service costs, and better energy conservation.

Table 1: Comparison of service costs and ROI when using PCs with Intel vPro technology^{3,5}

Use case	Without Intel® vPro™ technology	PCs with Intel® vPro™ technology					Estimated savings with 100% PCs with Intel® vPro™ technology
	Year 0 ^{a,b}	Year 1 ^a	Year 2 ^b	Year 3 ^b	Year 4 ^b	Year 5 ^b	
Patching – worker hours required for weekly patching	569 hours	109 hours	111 hours	113 hours	114 hours	116 hours	Patching success rate: up to 50% greater Patching costs: 85% less
IT service savings	N/A	\$25,600 savings	\$26,100 savings	\$26,600 savings	\$27,100 savings	\$27,700 savings	Cumulative 5-year savings: over \$130,000
KWh consumed for weekly after-hours patching	120,000 KWh	2,498 KWh	2,505 KWh	2,513 KWh	2,520 KWh	2,528 KWh	Cumulative 5-year savings: over \$60,000
Annual savings when managing PCs with Intel vPro technology	N/A	\$11,800 savings	\$12,000 savings	\$12,200 savings	\$12,500 savings	\$12,700 savings	
ROI Summary^{c,d}							
Overall NPV costs	2 hours	\$84,000	\$84,200	\$84,400	\$84,500	\$84,700	Break-even within 2.5 years ^{c,d}
Overall NPV benefits	\$1,600 cost	\$37,300	\$73,400	\$108,300	\$142,000	\$174,600	Positive ROI: ~100% across 5 years ^{c,d,5}
Net NPV	0	(\$46,700)	(\$10,800)	\$23,900	\$57,500	\$89,900	

^a Data is the result of measurements for Q1-Q3. Data in Q4 is the result of projections.

^b Data is the result of projections.

^c ROI is calculated based solely on the one IT process of patch management and the use of intelligent power management. ROI calculations assume a 5.5% weighted average cost of capital.

^d ROI results and projections do not include savings from improved user uptime or productivity.

For more information about PCs with the Intel Core 2 processor with vPro technology, visit www.intel.com/vpro

³ All content about CSK SYSTEMS was provided by CSK SYSTEMS. All content about the CSK SYSTEMS customer was provided by the customer.

⁴ PCs with Intel® Core™2 processor with vPro™ technology include powerful Intel® Active Management Technology (Intel® AMT). Intel AMT requires the computer system to have an Intel AMT-enabled chipset, network hardware and software, as well as connection with a power source and a corporate network connection. Setup requires configuration by the purchaser and may require scripting with the management console or further integration into existing security frameworks to enable certain functionality. It may also require modifications of implementation of new business processes. With regard to notebooks, Intel AMT may not be available or certain capabilities may be limited over a host OS-based VPN or when connecting wirelessly, on battery power, sleeping, hibernating or powered off. For more information, see www.intel.com/technology/platform-technology/intel-amt/.

⁵ Source: 2008 ROI Study of Deployment and Use of PCs with Intel® Core™2 processor with vPro™ technology, conducted at a CSK SYSTEMS customer's distributed sites in Japan, 2008.

⁶ Source: The CSK SYSTEMS customer.

⁷ Source: Where limited data around hardware was available, Intel internal and Industry standards were provided. In order to understand the changes in inventory across time, three impacts were documented and applied: refreshes, repairs, and growth. Refresh cycle and growth rate were provided for analysis. Repair numbers were provided by the franchise or inferred from the data collection and Intel' understanding of system behavior.

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