ROI Analysis

Intel® Core™2 Processor with vPro™ Technology

Government Agency

Reducing 856,000 Pounds of CO_2 Emissions through Remote Services and Off-Hours Power Management

The State of Indiana's newly consolidated Indiana Office of Technology (IOT) conducted a manageability assessment of PCs with Intel® Core™2 processor with vPro™ technology[1]. Their decision to convert 25,000 desktop systems to PCs with Intel® vPro™ technology within four years was based on reduced operational expenses[2]. The challenge was the consolidation of several IT service groups serving different agencies into a centralized service delivery organization while improving customer service and decreasing support costs.

TCO/ROI Investigation

Though IOT's central location is at the state capital in Indianapolis, the agencies serviced by the organization are spread state wide, resulting in expensive and time-consuming travel to remote offices for hardware and software support calls. The IOT was particularly interested in Intel vPro technology because of the economic importance and public safety aspect of some of the agencies they serve. For example, it is critical that PCs in the Family & Social Services; Bureau of Motor Vehicles; the Department of Corrections; and Office of the Governor branch remain available to users. The remote management capabilities of Intel vPro technology allow technicians to identify and resolve hardware problems faster and reduce deskside visits by **80%**, resulting in a total savings of **$1,386,929** in four years[3].

IOT was also looking for a solution that enables patch saturation within 48 hours of deployment without additional cost. PCs with Intel vPro technology can be powered down during non-business hours, then powered on for patch or software distribution – and then powered off again when the process is completed – resulting in a huge cost savings through reduced power consumption.

Also of importance to IOT is an accurate record of IT assets which are vital to their infrastructure management initiative, and in compliance with state mandates. A seven-day automated asset tracking mechanism is in place using Microsoft Systems Management Server (SMS), however IOT is still concerned about the 1-2% that still need to be accounted for physically[3]. The manual inventory causes significant end user disruption reducing productivity. With Intel vPro technology, manual inventory can be virtually eliminated as PCs with Intel vPro technology store hardware and software asset information in flash memory which can be read anytime, even if the operating system is not functional or the PC is powered off.

Positive ROI results

Based on the results of the investigation and return on investment, the IOT is going full speed ahead with deploying PCs with Intel vPro technology. Additionally, IOT concluded that the new hardware-based capabilities will help streamline and speed up delivery of software services, and eliminate up to **80%** of the costly and time-consuming deskside visits traditionally required to resolve hardware and software problems.

Key Findings from ROI Analysis

- **Positive ROI of 472% across 4 years** by deploying PCs with Intel® vPro™ technology with **break-even point achieved in 13 months**.
- **Savings of $172,761 in Year 1 through reduced deskside visits** by using the remote tools that come with Intel vPro technology.
- **Projected savings of $1,474,675 in power costs** across 4 years by simply turning off PCs with Intel vPro technology when not in use.
- **Projected reduction of 856,286 pounds of CO_2 emissions** across four years by eliminating **80% of the deskside visits**[5]

For example, by eliminating the travel time to perform an onsite software repair, IOT has reduced task time for some types of software diagnoses and repairs, and can reduce nearly **860,000 pounds of CO_2** emissions across four years. IOT also concluded that the remote power on/off capability will help save over **$1,474,675** over four years in energy costs.[3,4,7]

With a positive ROI of **472%**[9] across four years and a break-even point in **13 months** when deploying PCs with Intel vPro technology, the IOT is excited about the potential of significantly lower costs while serving the public even more effectively.

Use Case	Without Intel® vPro™ technology	When upgrading to PCs with Intel® vPro™ technology				Estimated savings with 100% PCs with Intel® vPro™ technology
		Year 1	Year 2	Year 3	Year 4	
	Year 0	6,250	12,500	18,750	25,000	
Hardware and software trouble tickets that require a deskside visit	30,572 deskside visits	24,458 deskside visits	18,343 deskside visits	12,229 deskside visits	6,114 deskside visits	Deskside visits: 80% eliminated Costs: 44% less Cumulative 4-year savings: $1,386,929
Hardware and software diagnosis and repair costs	$781,040	$658,279	$519,851	$365,980	$193,122	
Annual hardware and software service savings[8]	0	$122,761	$261,189	$415,061	$587,918	
		15.7% savings	33.4% savings	53.1% savings	75.3% savings	
Power Costs (Non-vPro PC)		$689,242	$689,242	$861,552	$1,033,862	Costs: 45% less Cumulative 4-year savings: $1,474,675
Power Costs (with vPro PC)		$573,581	$457,920	$427,824	$339,898	
Annual Savings		$115,661	$231,322	$433,728	$693,964	
		17.1% savings	33.6% savings	50.3% savings	67.1% savings	
Overall Savings		$144,672	$398,761	$755,039	$1,188,132	Break-even point: 13 months
Total Costs[10]	($434,808)					
Total Savings	$2,486,604					
Net Savings	$2,051,796					
Net Present Value (NPV)	$1,502,136					
Return On Investment (ROI)[6,7]	472%					

[1] 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/.

[2] The state has a target of 6,250 vPro systems in deployment by end of their 2008 fiscal year.

[3] All content about the State of Indiana Office of Technology (IOT) was provided by the IOT staff.

[4] Source: The State of Indiana Office of Technology's Manageability Assessment of PCs with Intel® Core™2 processor with vPro™ technology, conducted in August, 2007.

[5] Source: Based on EPA standards for carbon content of gasoline and assuming 21 mpg.

[6] Return on investment (ROI) calculations are based on the company's annual refresh rate for PCs, and calculated based on the difference between the company's typical PC and a PC with Intel® vPro™ technology. Costs for PCs purchased over and above the typical annual refresh rate are based on the full cost of the additional PCs with Intel vPro technology.

[7] Power savings based on 24,000 desktops. 1000 laptops were not included in this calculation.

[8] Annual Hardware and Software savings is calculated by a compounded 4% salary increase and a 10% mileage increase over four years.

[9] Return on investment (ROI) results and projections do not include savings from improved user uptime or productivity.

[10] Total costs include a one-time deployment cost and incremental cost for vPro over four years.

Printed in USA 0608/MMD/OCG/XX/PDF ♻ Please Recycle 320101-001US