ROI Analysis

Intel® Core™2 Processor with vPro™ Technology

Healthcare

Texas-Based Healthcare System Administers Patch Management and IT Support Efficiencies with Intel® vPro™ Technology

A leading healthcare organization based in Texas includes a network of acute-care hospitals and long-term-care hospitals. The healthcare system has more than 15,000 employees and over 3,000 physicians with staff privileges.

As a major medical institution, the majority of healthcare system's PCs are used for mission-critical patient care—from maintaining patient records to clinical workstations. With this in mind, the healthcare system looked to Intel® vPro™ technology[1] specifically to take advantage of the following: improved application patch management, simplified OS provisioning, and improved end-user and IT support productivity.

TCO/ROI investigation

The ROI study is a pilot program based on 1,100 new Intel vPro technology-based desktop PCs deployed at one the healthcare system's hospitals in Texas. This number reflects only 8.5% of the healthcare system's total enterprise.

Due to the critical nature of the healthcare system's desktop environment, **anything less than 100% application patch saturation is viewed as a failure.** Currently, the healthcare system is only able to reach 98% application patch saturation to their available desktops, so improving patch management is an urgent objective for the healthcare system.

To achieve this and their other objectives, the healthcare system standardized their production environment on Intel vPro technology with LANDesk management software, which enables their IT support staff to patch applications even if they are powered off.

With Intel vPro technology, **the healthcare system will be able to address the 2% failure rate in its patch management capabilities.**

In addition to improving their application patch management capabilities, the deployment of Intel vPro technology can also assist the healthcare system in improving their current provisioning processes. By implementing the bare-metal OS provisioning capability enabled by Intel vPro technology, it is estimated that the healthcare system could **reduce IT support time and expense for re-imaging a PC by 60%.** More importantly, the healthcare system could free up IT staff to address more critical and/or strategic issues.[3]

Furthermore, the healthcare system's IT staff is also focused on reducing support costs and end-user downtime due to hardware and software issues. By taking advantage of the remote management capabilities built into PCs with Intel vPro technology, the healthcare system can reduce the time required to transport, diagnose and repair their desktop systems. This is especially significant as the majority of the healthcare system's PCs are used as clinical workstations that are critical in delivering patient care and must be available 24/7. With this technology, the healthcare system could realize a **savings of $58,224 over 3 years, and improve end-user productivity by 57% per incident.**[4]

As an added benefit, the use of Intel vPro technology has proven to reduce desktop energy consumption. Through the use of the healthcare system's software management console and Intel vPro technology, non-mission-critical systems can be powered off during non-working hours resulting in approximately **216,810[5] KWH in energy savings over 3 years. With a total projected cost savings for their initial deployment across 8.5% of their enterprise, the hospital could realize a power savings of $21,681[6]** over that 3-year period.

Key Findings from ROI Analysis

- **Positive ROI of 141% in the first year, with a total of 412% over 3 years** by deploying PCs with Intel® vPro™ technology.
- **Savings of $115,942 over 3 years** by using Intel vPro technology.

Positive ROI results

Based on the results from the 1,100 Intel vPro technology-enabled PCs deployed at one of the healthcare system's larger hospitals, it is estimated that the healthcare system could see a **141% return on their year 1 investment. With the Intel vPro technology-enabled infrastructure implemented in year 1, the healthcare system is positioned to realize an increased savings of 412% over 3 years, equating to $35.13 per seat savings/per year.** Moreover, upon further deployment of Intel vPro technology-enabled PCs across the healthcare system's entire enterprise, the healthcare system and their clients should see further efficiencies as they replace non-Intel vPro technology PCs in their enterprise. As part of their overall refresh program, the healthcare system's hospitals could recognize a significant reduction in the overall power consumption at each Intel vPro technology-supported facility.[7]

Table 1. Results of ROI investigation

	Without Intel® vPro™ technology	Estimated savings with 100% PCs with Intel® vPro™ technology			
		Year 1	Year 2	Year 3	
Use case	Year 0	1,100 PCs	1,100 PCs	1,100 PCs	Over 3 years
Field support costs	$29,310	$9,902	$9,902	$9,902	Total support cost savings per PC of 64%
Re-image support	$11,882	$4,753	$4,753	$4,753	
Power costs (non-vPro PC)	$48,180	$0	$0	$0	Total savings of 216,810 KWH through 15% reduced consumption annually
Power costs (with vPro PC)		$40,953	$40,953	$40,953	
Annual power savings		$7,227	$7,227	$7,227	
Productivity savings		$4,883	$4,883	$4,883	60% improvement in productivity, equating to $14,649
Overall savings		$38,647	$38,647	$38,647	Total benefits over 3 years, equating to $115,942
Total costs	**$28,132**				
Total benefits	$115,942				
Net savings	$87,810				
Net Present Value (NPV)[8]	$73,484				
Return on Investment (ROI)	412%				

[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] This ROI scope is focused only on 1,100 new Intel vPro technology-enabled desktops that the healthcare system has currently deployed at one hospital.

[3] Field Support and Re-imaging cost savings are calculated by reducing the number of required desk-side visits to a maximum of one visit per incident.

[4] Assumes a 25% loss in productivity for end-users when a desktop is non-functioning.

[5] The power savings calculations are based on 30% of the total desktops which can be powered off when not in use.

[6] The power cost per KWH was arrived at using the Department of Energy website, www.eia.doe.gov/cneaf/electricity/epm/table5_6_b.html and was only factored for one healthcare system's hospital.

[7] Additional power savings would be realized by the actual hospitals within the healthcare system's network.

[8] Project NPV assumes a 15% discount rate.

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