

ROI Analysis

Intel® Core™2 Processor with vPro™ Technology
Healthcare



Transforming IT Support with Intel® vPro™ Technology

The Calgary Health Region (the Region) is one of the largest fully integrated publicly-funded health care systems in Canada, serving a population of over 1.2 million people. With over 29,000 employees and 2,300 physicians providing services in over 100 locations, they manage a diverse PC fleet of approximately 13,000 desktops and 3,000 laptops, refreshed at a rate of 25% per year.

As a result of a 2006 Intel® vPro™ technology¹ proof of value (POV) pilot, the Region² made a strategic change in direction for future PC management and software services. This has since been accomplished in its production environment through the standardization on Intel vPro technology and through the investment and implementation of LANDesk software. Today, these changes enable the Region to take full advantage of Intel vPro technology, improving patch management, simplifying OS provisioning, and improving end user and IT support productivity, while significantly reducing energy costs.

TCO/ROI Investigation

The ROI study is based on the Region's current support base of approximately 16,000 systems, of which today 4,000 (25%) are Intel vPro systems. The number of Intel vPro PCs is expected to grow by 4,000 a year for the next three years through the normal refresh cycle.

Improving patch management has been a key objective for the Region. The implementation of LANDesk software could generate a savings of **\$110,472** each year compared to its previous software management tool. At anytime, 30% of their machines are powered off. Previously, the Region's software management tool took **5 days** to deploy a patch achieving only **70% saturation, resulting in some systems never** receiving critical patches.

The implementation of LANDesk software coupled with Intel vPro technology ensures systems can be patched, even if they are powered off, reaching a **98% saturation rate in 4 hours**³

Leveraging its improved patch management capabilities, the Region is now able to reduce their PC energy consumption. Intel vPro technology and LANDesk allow systems to be powered off during non-working hours resulting in approximately **2,767,996 KWH**⁴ in energy savings over 4 years, with a total projected cost savings during that time of **\$276,800**⁵

The Region's IT staff is leveraging LANDesk's tight integration with Intel vPro technology to improve current provisioning processes. By implementing a bare metal OS provisioning capability, the Region could reduce IT support time for a new PC from 90 minutes to 5 minutes—resulting in a projected savings of **\$101,752**² in IT support costs—and more importantly, freeing up IT staff to address critical issues.

Supporting over 100 locations, the Region's IT staff is focused on reducing support costs and end-user downtime due to hardware and software issues. By taking advantage of Intel vPro technology around remote management, the Region's IT support could reduce the time required to diagnose and repair systems. With this technology, it is projected that the Region could save **\$200,697**⁶ over **3 years** and increase end-user productivity by **3.4 hours** per incident.

Key Findings from ROI Analysis

- Positive ROI of 78% over 4 years by deploying PCs with Intel® vPro™ technology with a break-even point achieved in 27 months.
- Savings of \$276,800 by Year 4 through reduced power consumption by using the capabilities of Intel vPro technology.
- Projected savings of \$101,752 in IT support costs with bare metal OS imaging/reimaging.

Positive ROI Results

Based on our findings with Intel vPro technology, the Calgary Health Region can realize a positive ROI of **78%** with a break-even point achieved in 27 months.

Additionally, the organization could see a reduction of **25,498** in IT support man-hours and **92,774⁷** hours in end-user downtime which encompasses reduced repair and diagnostic time, more efficient patch management, and a reduction of **5,400** hours in travel time for imaging/reimaging and repair.

Future savings to the Calgary Health Region could also be achieved through improving asset management and training room PC reimaging by expanding their use of the capabilities within Intel vPro technology.

Use Case	Without Intel® vPro™ technology	When upgrading to PCs with Intel® vPro™ technology				Estimated savings with 100% Intel® vPro™ technology
	Year 0	Year 1	Year 2	Year 3	Year 4	Totals
Non-vPro Bare Metal OS Provisioning	\$70,686	\$53,015	\$35,343	\$17,672	N/A	\$101,752 in IT staff cost reduction using Bare Metal OS provisioning
vPro-enabled Bare Metal OS Provisioning		\$70	\$1,683	\$2,525	\$3,366	
Bare Metal OS Savings		\$52,944	\$33,660	\$15,147	\$0	
Non-vPro Patch Management Costs	\$110,876	\$110,876	\$110,876	\$110,876	\$110,876	\$441,888 in savings while providing up to a 98% saturation rate
LANDesk/vPro Patch Management Costs		\$404	\$404	\$404	\$404	
Patch Management Savings⁹		\$110,472	\$110,472	\$110,472	\$110,472	
Power Cost	\$718,960	\$691,280	\$663,600	\$635,920	\$608,240	\$276,800 savings, overall 9.6% power savings can be obtained
Cost Reduction Through Powering Off vPro-enabled PCs		\$27,679	\$55,359	\$83,039	\$110,719	
Percentage Savings		3.90%	7.70%	11.50%	15.40%	
Non-vPro Software Diagnosis Cost	\$318,070	\$318,070	\$159,044	\$79,522	N/A	\$200,697
vPro Software Diagnosis Cost		\$0	\$15,147	\$22,721	\$30,294	
Software Diagnosis Savings^{6,10}		\$0	\$143,897	\$56,801	\$0	
Four-year Savings Based on Above Use Cases						\$1,021,137
Total Savings	\$1,021,137					Break-even Point: 27 months
Total Investment Costs ⁸	\$573,647					
Net Savings	\$447,490					
Return On Investment (ROI)	78%					

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

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 All information was provided by the Calgary Health Region's IT staff, unless otherwise noted.

³ Assumes 100% Intel vPro-enabled PC deployment.

⁴ Power savings based on 59% of the Intel vPro technology PCs being shut down for 12 hours a day with an average of 60 Watts consumption per hour.

⁵ Power cost was derived using .10 per KWH based on the Calgary Health Region's energy company ENMAX website rates <http://www.enmax.com/>.

⁶ Assumes Intel vPro technology use of remote management begins in year 2.

⁷ Productivity time is based on reducing trips to 1 visit and reduction in down time to a max of 2 hours vs. 24 hours as in the past or 22 hours per ticket, based on an average of 4217 tickets per year.

⁸ LANDesk software licenses, deployment and incremental PC costs make up the total implementation cost.

⁹ Patch Management savings are based on the assumption of 1 Patch push per month; the patch itself could contain multiple patches.

¹⁰ Software Diagnosis Savings is based on reducing the number of non vPro-enabled machines by 25% each year, thereby reducing the man time required to diagnose the issues using vPro capabilities.

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