ROI Analysis

Intel® Core™2 Processor with vPro™ Technology

Telecommunications

Positive ROI of 400% Achieved by Deploying Intel® vPro™ Technology

A telecom service provider in South America offers a variety of services to residential, small and medium businesses, and large enterprise customers.[1] These services include local and long-distance domestic and international calling, data transmission, and television and Internet services. The telecom company has over 7,500 employees and 8,000 desktop PCs across over 100 sites throughout a single country in South America.[1] The company contracts with a third-party information technology (IT) service provider for level 2 remote support and level 3 field support services.

Until recently, the telecom company did not have a formal PC refresh policy in place, and had not purchased new PCs in three years. As a result, support costs had risen steadily, while user downtime had also increased.

In 2008, the telecom company began overhauling their IT structure. After learning about the remote management and security capabilities of PCs with Intel® Core™2 processors with vPro™ technology, the telecom company instigated a refresh policy of about 3,000 PCs with Intel® vPro™ technology per year.[2]

Since deploying 336 Intel vPro technology-based PCs through June 2008, the telecom company has seen significant savings. The company expects to realize about $43,000 total in savings for 2008 with about 2,500 Intel vPro technology-based PCs activated by the end of the year.[3] In addition, the company's IT service provider estimates that the telecom company's support cost per PC for software-related issues will be reduced from $131 per PC per year to $62 per PC per year by shifting to PCs with Intel vPro technology.[3]

With the ability to resolve software-related problems remotely – including OS hangs, application hangs, and system reimagings – the telecom company's IT service provider expects to eliminate up to 80% of the deskside visits previously required to resolve system software-related problems. Based on the in-service machines as well as extensive lab tests, the telecom company and its IT service provider have projected a break-even point at 1 year, and a positive return on investment (ROI) of 401% over 4 years.[3]

TCO/ROI investigation

The telecom company's investigation was conducted in an environment with over 100 sites and 8,000 desktop PCs, of which 336 (4%) were PCs with Intel vPro technology. Data was analyzed only for the one use case of software diagnostics and repair processes. Data was then projected for four years, with the assumption that the telecom company would not grow their PC fleet, and the company would deploy on average approximately 2,700 (33%) PCs with Intel vPro technology each year as part of a formal hardware refresh cycle. ROI was calculated conservatively, for only the one service task of software diagnostics and repair.

Key findings from ROI analysis

- **Positive ROI across 4 years of 401%** by deploying PCs with Intel® vPro™ technology to support remote software problem diagnosis and repair.[3]
- **Break-even point achieved 1 year.**[3]
- **Projected cumulative savings for the company of over $1.47M** in software support costs over four years.[3] the telecom company's IT service provider is using the improved remote diagnosis and repair capabilities built into the PCs to reduce the time required for software problem resolution by 86% and eliminate virtually all site visits required for such issues.[3]

Positive results

Based on the results of their investigation, the telecom company and their IT service provider concluded that the hardware-based capabilities designed into PCs with Intel vPro technology will deliver a dramatic reduction in software service costs:

- Reduce annual service cost per PC for software-related problems by up to 53% – from $131 to $62.[3]
- Reduce mean time to repair for software-related problems by up to 62%, from 2.6 hours to 1 hour.[3]
- Reduce user downtime per software problem by a conservative 87%.[3]

The telecom company and its IT service provider are also taking advantage of "zero touch" certificate-based remote configuration technology built into PCs with Intel vPro technology to reduce the costs of deploying the machines.

The telecom company is extremely pleased with both the savings in service costs and the immediate improvement in user uptime. Faced with commercial competition and feeling the impact of customer perceptions, the company is excited about being able to announce the effectiveness of their drive to become a better, more efficient company. Their service provider is also eager to grow remote services and shift service burdens from field personnel to a centralized help desk. The two companies are already planning to implement other capabilities – such as remote hardware diagnostics, off-hours patching, and power management – built into PCs with Intel vPro technology in order to see further savings and improvements.

Table 1. Comparison of service costs and ROI for software diagnostics and repair[3,4]

Use case	Without Intel® vPro™ technology	PCs with Intel® vPro™ technology				Estimated savings with 100% Intel® vPro™ technology
	Year 0[a]	Year 1[a,b]	Year 2[b]	Year 3[b]	Year 4[b]	
		2,500 (31% of total PCs) Intel vPro PCs	6,000 (75% of total PCs) Intel vPro PCs	8,000 (100% of total PCs) Intel vPro PCs	8,000 (100%) Intel vPro PCs	Annual travel time: 80% less Average annual software support costs: 33% less Cumulative 4-year savings: $1.47M
Annual software service costs	$1,960,455	$1,896,065	$1,240,321	$742,653	$696,435	
Annual software service savings	N/A	$64,390	$778,947	$1,337,193	$1,445,807	
Overall NPV costs	N/A	$74,544	$81,180	$48,643	$14,828	Break-even point: year 1
Overall NPV benefits	N/A	$43,418	$264,434	$390,091	$399,298	Positive ROI: 401% in year 4[c,4]
NPV Savings[d]	N/A	($31,126)	$183,254	$341,448	$384,470	

[a] Data is the result of measurements.

[b] Data is the result of projections.

[c] ROI is calculated conservatively, based on only the one use case of software diagnostics and repair. ROI calculations include an analysis of actual trouble tickets: 318,540 tickets per year, with 70% of level 2 issues being software problems, and 86% of all software problems requiring a deskside visit. ROI calculations also include a four-year projection to identify continued trends from taking advantage of the hardware-based capabilities of Intel vPro technology, a 3% inflation rate, and a conservative 15% "hurdle" or discount rate.

[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

[1] All content about the telecom company and its IT service provider was provided by the telecom company and its IT service provider.

[2] 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/.

[3] Source: The telecom company's 2008 Pilot of PCs with Intel® Core™2 processor with vPro™ technology, conducted in June, 2008, at the company's distributed sites in South America.

[4] 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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