

ROI Analysis

Intel® Core™ 2 Processor with vPro™ Technology

Small and Medium Business



Delivering Positive ROI Through Intel® Core™ 2 Processor with vPro™ Technology

Provincia di Ancona, a local government agency in Italy recently studied the return on investment (ROI) realized by deploying PCs with Intel® Core™2 processor with vPro™ technology in their distributed environment.¹ Based on the positive results of their investigation, the agency is looking to deploy additional PCs with Intel® vPro™ technology throughout their offices, by using the ITIL framework as a key strategy for deployment.

Provincia di Ancona is technology driven and wanted to identify the ROI offered by the hardware-based remote-manageability capabilities that are built into Intel vPro technology-based PCs. Provincia di Ancona was interested in PCs with Intel vPro technology because of their organizational structure and mandate. The agency comprises several townships, has both local and remote offices, and is responsible for the transportation infrastructure of the region – a strategically important province that is Italy's main hub for maritime traffic in the Adriatic Sea.²

Because of the economic importance and public-safety aspect of the agency's work, it is critical that agency PCs remain available to users. Especially important is keeping PCs working in remote offices, where travel time is extensive, and a day of downtime can have a significant impact on local affairs and businesses.²

The transportation agency has a strong commitment to technologies that can help them serve the public better by maintaining efficient, cost-effective IT operations.

Provincia di Ancona turned to PCs with Intel vPro technology to gain greater remote access to their systems. They are eager to see how using other capabilities of Intel vPro technology will provide additional savings across their transportation infrastructure.

TCO/ROI investigation

Provincia di Ancona's ROI investigation was conducted in an environment with 582 systems, of which 110 (19%) were initially PCs with Intel vPro technology. The total inventory and the inventory's behavior across time was analyzed for software problem diagnosis and resolution – a key IT service area – and also for the critical operational area of power management.⁴ Data was then projected for four years, with the assumption that additional PCs with Intel vPro technology would be deployed each year as part of the agency's typical hardware refresh cycle. ROI was calculated conservatively, for only the one service task, and does not include power savings.

Key findings from TCO/ROI analysis

- **Positive ROI of up to 166% overall realized in year 5**, with 100% PCs with Intel vPro technology.^{3,5,6}
- **Break-even point achieved in 1.5 years.**^{3,5}
- **Projected savings of 24% in energy costs** via improved power management. Provincia di Ancona expects to realize an estimated savings of up to 24% (more than \$15,000 per year) in energy costs when 100% of the agency's PCs are Intel vPro technology-based systems. This is a result of being able to use power-management software to implement a more effective power-management policy. With PCs based on Intel vPro technology, even when PCs are powered off, a service technician can still remotely power up the PC for off-hours IT work, then use their power-management software to return the system to its original power state.

Positive results

Based on the results of their investigation, Provincia di Ancona 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 site visits traditionally required to resolve software problems.³

For example, by eliminating the travel time to perform an onsite software repair, the agency has reduced task time for some types of software diagnosis and repair.³ Provincia di Ancona also concluded that the remote power on/off capability will help save over \$15,000 per year in energy costs – up to 24% of the agency's power budget for PCs.³

With a positive ROI of 31% realized in year 2 when deploying PCs with Intel vPro technology, Provincia di Ancona is excited about the potential for significantly lowering costs while serving the public even more effectively.³

Table 1: Results of investigation into specific IT processes^{4,6}

| Use case | Without Intel® vPro™ technology | When upgrading to PCs with Intel® vPro™ technology | | | | | Estimated savings with 100% PCs with Intel® vPro™ technology |
|--|---------------------------------|--|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|--|
| | Year 0 ^a | Year 1 ^a | Year 2 ^b | Year 3 ^b | Year 4 ^b | Year 5 ^b | |
| Software trouble tickets that require a deskside visit | 2,800 deskside visits | 2,377 deskside visits | 1,842 deskside visits | 1,394 deskside visits | 946 deskside visits | 560 deskside visits | Deskside visits: 80% eliminated Costs: 40% less Cumulative 5-year savings: \$240,000 |
| Software diagnosis and repair costs | \$175,500 costs | \$158,100 costs | \$136,100 costs | \$117,700 costs | \$117,400 costs | \$105,300 costs | |
| Annual software service savings | 0 | \$17,400 savings 9.9% savings | \$39,400 savings 22.5% savings | \$57,900 savings 33.0% savings | \$58,100 savings 33.1% savings | \$70,200 savings 4.0% savings | |
| Power costs ^c | \$65,500 costs | \$62,600 costs | \$58,800 costs | \$55,700 costs | \$52,500 costs | \$49,800 costs | |
| Annual savings ^c | 0 | 5% savings | 10% savings | 15% savings | 20% savings | 24% savings | |
| Overall savings | 0 | \$(7,000) | \$13,400 | \$55,300 | \$97,500 | \$151,800 | Break-even point: year 2 Positive ROI: 31% in year 2 |
| Overall ROI ^d | 0 | -29% | 31% | 93% | 129% | 166% | |

^a Data was validated.

^b Data is the result of projections.

^c Potential savings from using a management application to power down systems at night and on weekends (65% of the time), and using Intel® vPro™ technology to power PCs up off-hours for service. Annual power consumption of a PC without Intel® vPro™ technology = 73.63 kilowatt-hours (KWh) per PC. Annual power consumption of PC with Intel vPro technology = 52.69 kWh per PC. Typical cost per KWh = \$0.20.

^d ROI calculations are based on one use case for software problem resolution, and do not include power savings.

For more information about PCs with the Intel Core 2 processor with Intel 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 content about the Italian transportation agency was provided by the Italian transportation agency.

³ Source: The Italian agency's 2007 Pilot of PCs with Intel® Core™2 processor with vPro™ technology, conducted in November and December, 2007, at the agency's distributed sites in Italy.

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 inferred from the data collection and Intel understanding of system behavior.

⁵ 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.

⁶ Return on investment (ROI) results and projections do not include savings from improved user uptime or productivity. ROI calculations also do not include energy savings from improved power management realized when managing PCs with Intel® vPro™ technology.

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