ROI Analysis

**Intel® Core™2 Processor with vPro™ Technology**

Small and Medium Business

# Reducing IT resource needs and service costs through Intel® Core™2 processor with vPro™ technology

High-tech training rooms for hardware and software developers at Intel University are demanding environments where a small staff must service 800 PCs at over 30 sites across three continents. Typically, Intel University IT technicians reimage PCs weekly to set up for new training configurations – performing over 460 full training-room rebuilds a year. In this environment, the cost of maintaining a training room is significantly higher than that of managing a comparably sized business.

Technicians must also try to resolve BIOS and other issues off-hours to avoid interfering with users. One reason for the service constraint is that users often travel large distances to attend scheduled training. Instructors can't hold up an entire class just to wait for a technician to arrive deskside to service a user's PC, and users can't usually return at a later date to complete or retake a class.

Because of the potential for service savings and better user uptime offered by PCs with Intel® Core™2 processor with vPro™ technology, Intel University was an early adopter of the technology.[1] After compiling the results of in-house evaluations and pilot studies for the technology, Intel immediately began replacing the training-room systems with PCs with Intel® vPro™ technology. Intel then conducted a detailed investigation of the savings that would be realized by deploying over 300 PCs with Intel vPro technology in their globally distributed environment, while planning a complete shift to the new technology for all training rooms.

## ROI investigation

Intel's investigation into the savings offered by Intel vPro technology was conducted in a globally distributed environment. The test environment consisted of 39 training rooms in Asia, the United States, and western Europe, with approximately 800 PCs, of which 300 systems were PCs with Intel vPro technology. During the study, Intel made a strategic decision to refresh additional systems with Intel vPro technology-based PCs. Deployment was coordinated on a global level. Data was then projected to an environment of 100% PCs with Intel vPro technology.

## Significant savings in resources

Results of the ROI analysis show impressive savings in key IT tasks for both technician efficiency and service costs. For example, Intel has been able to free up 50% of direct IT support staff for more strategic work, without any loss of quality of service to scheduled training.[2] Task time for rebuilding images has also been reduced by 81%, while task time for other services has improved 75%.[2] The study shows that the break-even point for the Intel University training rooms will be achieved in 1.5 years, while overall, Intel expects to realize a 150% ROI in year 2.[2,4]

In addition, now that Intel vPro technology is available for many training rooms, IT technicians are continually finding new ways to take advantage of the technology to improve other process efficiencies for their unique and highly demanding environment.

## Key findings from TCO analysis

- Break-even point achieved in 1.5 years.[2]
- ROI of 150% realized in year 2.[2,3,4]
- Reduce service costs by 30% to 81%.[2] Intel used the improved remote diagnosis and repair capabilities built into the PCs to speed up system image rebuilds and reduce service costs by 30% in year 1 and 81% in year 2.[2] Intel used the same capabilities to reduce task time and costs for software repair and application deployment by 75%.[2] In two years, Intel University is saving over $91,000 on image rebuilds alone.[2]

And, once the training rooms are 100% PCs with Intel vPro technology, Intel expects to reduce service costs by over 90% for system rebuilds, application deployment, and software repair for the first several years before replacements and refreshes are needed.

One of the key findings of the ROI investigation is that global centralization of IT services, which was once difficult to achieve, is now a practical business model, even for a widely distributed environment. Intel can now scale and support a larger training infrastructure without hiring more service technicians, even while users experience a better quality of service and more uptime during Intel University classes.

Intel IT Training Solutions is very pleased with the obvious savings, and is now looking to implement additional capabilities of Intel vPro technology and expand class offerings to include portable training rooms that can still be effectively serviced from a centralized location via the capabilities of Intel vPro technology.

## Table 1: Results of TCO investigation[2,3]

| Use case | Without Intel® vPro™ technology | Percentage PCs with Intel® vPro™ technology | | Estimated savings with 100% PCs with Intel® vPro™ technology |
|---|---|---|---|---|
| | | Year 1[b] | Year 2[c] | |
| | Year 0[a] | 300 (37%) Intel vPro PCs | 800 (100%) Intel vPro PCs | |
| System image rebuild | | | | Task time: 81% faster<br>Annual costs: 81% less<br>Cumulative 2-year savings: $91,900 |
| Time to resolve problem | 4 hours | 45 minutes | 45 minutes | |
| Annual service cost | $82,400 cost | $57,300 cost | $15,400 cost | |
| Annual savings | 0 | $25,000 savings | $66,900 savings | |
| Software problem diagnostics and repair | | | | Task time: 75% faster<br>Annual costs: 75% less |
| Time to resolve problem | 4 hours | 1 hour | 1 hour | |
| Annual service cost | 4 hours | $1,700 cost | 1 hour | |
| Annual savings | 0 | $600 savings | 1 hour | |
| Software application deployment | | | | Task time: 75% faster<br>Annual costs: 75% less |
| Time to deploy application | 2 hours | 30 minutes | 30 minutes | |
| Annual service cost | $1,600 cost | $1,100 cost | $400 cost | |
| Annual savings | 0 | $500 savings | $1,200 savings | |
| ROI summary[3,4] | | | | Break-even point: 1.5 years<br>Positive ROI: 150% in year 2[4] |
| Overall NPV costs | N/A | $36,700 cost | $28,400 cost | |
| Overall NPV benefits | N/A | $26,200 savings | $69,900 savings | |
| Overall ROI[3,4] | N/A | 48% | 150% | |

[a] Data was validated.

[b] For system rebuilds and trouble tickets, data was validated in Q1-Q3, and data is the result of projections in Q4. For application deployment, data is the result of measurements in Q1 and Q2, and the result of projections in Q3 and Q4.

[c] Data is the result of projections.

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] Source: The Intel 2007 Training-Room Pilot of PCs with Intel® Core™2 processor with vPro™ technology, conducted in 2007, at Intel's distributed sites in Asia and the United States.

[3] Return on Investment (ROI) calculations do not include travel time.

[4] Because Intel University received a discounted price from Intel on PCs with Intel vPro technology, for the purposes of ROI calculations, hardware costs were based on average retail prices seen by external clients.



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