

Does the Vista view include Real ROI?

A discussion on initial ROI research and modeling of the business case for Vista.

*An Alinean white paper study
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Executive Summary

With the official release of Microsoft Vista many corporations will be getting requests to upgrade, and puzzling over whether it makes fiscal sense. The major question to be answered: Does Vista derive enough savings to make the case for near-term migration, or should the organization take a wait-and-see approach?

Frugal CIOs and CFOs want to understand how investing in the upgrade will yield immediate and direct benefits – particularly how it will help reduce IT costs, while at the same time improving user productivity, service levels and capability. With the most frugal buyers in mind, let us first look only at the direct impacts of implementing Vista – how the Vista investment can help lower ongoing IT costs.

Looking at the costs of PC ownership, IT labor for desktop management and support is the largest IT expense, consuming almost 60% of the total lifecycle costs.¹ PC support and administration costs on average one FTE for every 100-200 PCs, with an estimated 8 to 12 service desk calls per PC per year. With this costing \$400 to \$700 annually per PC on labor or on outsourced equivalents the most significant direct IT savings can be achieved by reducing administration and support staff tasks and improving their productivity.² By reducing the burden of PC management and support, organizations can help reallocate precious resources from mundane “keeping the lights on” operations, which today consume an average 61% of current IT spending, to more innovative projects, which now only amounts to a scant 14% annual investment – one of the highest priority goals for most IT organizations over the next three years.³

Vista as a key to Infrastructure Optimization

In examining ways to achieve greater business value from IT, recent studies by IDC on Infrastructure Optimization strategies has demonstrated that implementing best practices can help to significantly reduce operating costs and boost service levels and agility. The study was conducted on almost 1,000 organizations, and analyzed the impact of maturing organization from a Basic practices level where IT operations are uncoordinated and manual and IT is seen as a cost center, through Standardized, where there is a managed IT infrastructure with some automation and knowledge capture to Rationalized, where IT is a business enabler, infrastructure is managed and consolidated and there is extensive automation, knowledge captured and re-used.⁴

¹ When considering total cost of ownership, end user costs for self/peer support (end user operations) and downtime impacts is actually the largest component at almost 50% of the total costs, making IT labor only 15% of the total costs, however, end user costs are indirect.

² Costs based on a typical Windows 2000 or Windows XP / XP SP2 desktop PC managed to Basic to Standardized Optimization levels.

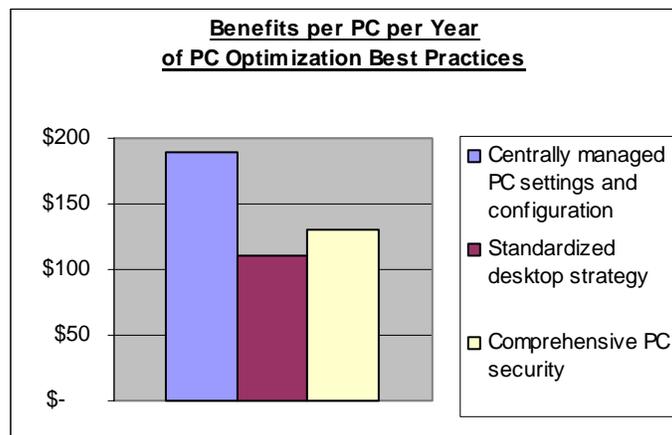
³ Return on IT (ROIT) is up along with spending trends; Although it's not time to Party Like its 1999, there is plenty to Celebrate, An Alinean white paper study, December 2006. <http://www.alinean.com/PR/PR-ITSpending2007.asp>

⁴ A fourth level of Dynamic is established, but few if any companies have achieved this level of optimization. Rationalized treats IT as a key strategic asset, where management is a fully automated

dynamic resource with business linked SLA's. Knowledge capture is automated as is use

As part of the infrastructure optimization Windows Vista was indicated as a key catalyst and component, helping organizations to achieve optimization more quickly, efficiently and effectively, as well as being able to better adopt and sustain these practices once implemented. With the optimization of desktop management from Basic to Rationalized, organizations have been surveyed to achieve compelling IT labor savings / reallocation of up to \$430 USD per PC per year, including the following specific improvement strategies:⁵

- **Centrally managed PC settings and configuration** (savings of \$190/PC): Keeping deployed PCs standardized by preventing users from making changes that compromise security, reliability and the application portfolio.
- **Standardized desktop strategy** (savings of \$110/PC): Deploying a standardized desktop by minimizing hardware and software configurations.
- **Comprehensive PC security** (savings of \$130/PC): Proactively addressing security with anti-virus, anti-spyware, patching, and quarantine.



Source: *Optimizing Infrastructure: The Relationship Between IT Labor Costs and Best Practices for Managing the Windows Desktop*, IDC October 2006, #203482

Up to \$430 in IT labor savings per PC per year can be achieved from implementing IDC recommended PC infrastructure optimization best practices – from Basic to Rationalized. Many of these benefits can be enabled and maintained more easily and less expensively with Vista.

When IDC isolated just the affects of Vista in Standardized organizations, predictions estimate \$123 in benefits per PC when migrating from Windows 2000 environments migrating to Vista, while IT labor savings of \$37 to \$66 per PC are expected for migrating from Windows XP / XP SP2 environments respectively.

⁵ Moving an organization from Basic to Rationalized. *Optimizing Infrastructure: The Relationship Between IT Labor Costs and Best Practices for Managing the Windows Desktop*, IDC, October 2006, #203482
<http://roianalyst.alinean.com/microsoft/PC%20Best%20Practices.pdf>

At Alinean, we incorporated the IDC research, along with research from GCR and WiPro into predictive models and tools to estimate the costs and benefits of migrations, and easily project these figures for any company or situation. Using these models resulted in slightly more conservative IT labor productivity improvements ranging from \$69 per PC for Standardized Windows 2000 environments migrating to Vista, and \$50 per PC for Standardized Windows XP environments.

These savings included some major improvements in manageability and support:

Improved image management – A typical organization spends \$2-\$6 per PC per year managing and distributing images to support updates, upgrades and refreshes. Because Windows Vista operating system is built using new Windows Imaging Format (WIM) hardware-agnostic image file format, and using separate and self-contained components with clearly defined dependencies, helping to significantly reduce the number of images to be managed. New deployments and maintenance of operating system costs can be significantly reduced as a result to image consolidation reducing costs to less than \$1 per PC per year, a savings of between \$1 and \$5 per PC per year.

Enhanced security and security management – With almost 3% of total PCs falling victim to security incidents per year in average environments, security risk mitigation and management is important – a potential \$18 opportunity per PC per year in reducing mitigation labor alone.

Making it harder for viruses, malware and exploits to be introduced and making it harder to spread over the network was a key design goal of Vista. Early tests of Vista have proven that it is much more secure, and although Vista is expected to be a prime miscreant target, based on the design, the resilience benefits are expected to continue.⁶ Because Vista is built on the Windows Server 2003 operating system, its core is more reliable than predecessor versions. To make security easier to manage and maintain, the Vista design requires smaller patches when needed, and an optimized distribution technology to get needed patches in place faster and with less burden on the network and resources.

These savings combine to contribute from \$4 to \$12.50 per PC per year in security remediation labor benefits – particularly avoiding security incidents before they happen.

Security Patch Management

Patch management and distribution is a painful reality of managing today's Windows 2000 and XP environments. Windows 2000 has averaged 1 critical and 10 high priority patches per year, while Windows XP / XP SP2 has had 0.4 critical and 12.5 high priority patches per year. Patch management adds average cost of around \$2 per PC annually.

Windows Vista adds the Windows Update Agent (WUA) for more reliable distributions with reduced reboot requirements, and Background Intelligent Transfer Service (BITS) providing intelligent distribution to reduce distribution and bandwidth issues when distributing patches.

With Windows Vista, less patches are expected and patches are easier to build and deploy, resulting in a projected 23% reduction in labor required per patch, and an estimated \$1-\$2 per PC per year in security patch management labor avoidance.

⁶ Baseline Magazine, November 10, 2006 , Vista's Beta Users Praise System's Security, By Robert Hertzberg

Automated Desktop Management

Currently PC infrastructure management costs organizations from \$300 to \$420 per PC per year in non optimized environments – the largest opportunity for savings. This labor includes managing PC related adds, moves and changes of hardware and software, user administration, software deployment, application management, asset and data management. Along with the security, image and patch management features above, Vista supports more automated and granular control of the desktop to help reduce labor costs including:

- Group policy – policy settings are expanded covering new features and areas of customer need
- Windows Image Management (WIM) – helping to reduce the number and complexity of images under management.
- Task scheduler facilitates recurring and event triggered task activation.

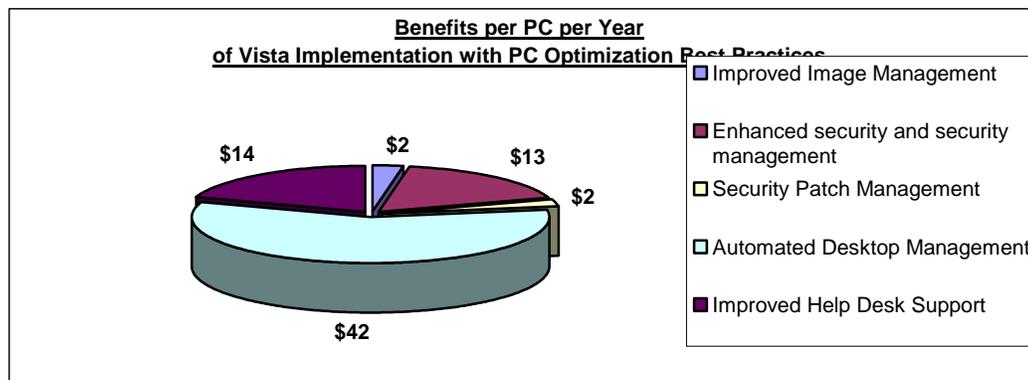
Savings from these features are estimated to be as much as 10% or around \$30 to 42 per PC per year.

Improved Help Desk Support

In typical environments, the average PC user calls the help desk from 8 to 12 times per year in non-optimized environments. This translates to an average \$120 to \$180 in IT labor per PC per year.

With new features such as Windows Resource protection which automatically helps to maintain and protect Windows itself from inadvertent changes, as well as prior described platform reliability, security and manageability features, issues are prevented before they occur. When issues occur, getting them solved faster and without escalation helps to reduce support costs. Via in-the-box viewers Vista provides IT support with a unified view for all Windows components. With support for the Intelligent Platform Management Interface standard, hardware monitoring and diagnostics are improved.

The proactive prevention of calls combined with better supportability deliver estimated savings of up to 8% per PC, or a potential savings of \$9.40 to \$14.40 per PC per year.



Source: Alinean Infrastructure Optimization Business Value Analyst v1.0 – November 2006

IT Deployment Investment – the Cost of Change

Looking at the cost for deploying Vista, we find that depending on the scenario used, costs can vary widely.

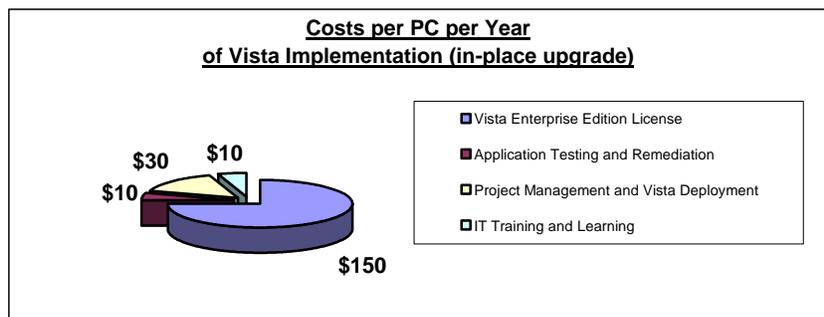
One strategy to achieve Vista immediately is to perform an in-place migration where systems are upgraded now to the new operating system without replacing the systems with new PCs, often using automated software distribution tools. In such a strategy, if hardware upgrades are not needed, the migration is expected to be around \$190 per PC including \$150 for the Vista license, and \$40 per PC for upgrade planning, migration and upgrade, IT training, and application compatibility testing and remediation. For this scenario, if a zero-touch deployment using automated software distribution is not used to make the in-place upgrade less labor intensive, costs could be 20 to 40% higher due to having to use labor to manually install the OS on each PC. If the Vista license is part of corporate licensing, these costs could be significantly lower per PC.

If hardware upgrades to memory, disk drives or video cards are required, in particular so that the Aero interface can be supported, or to upgrade old systems to meet minimum requirements costs can increase an additional \$100 to \$120 per PC including both the hardware and the labor to perform the upgrade. In most environments, it is estimated that at least 1/3rd of the systems require replacement or upgrade in order to adequately support the new OS.

These deployment costs only refer to the IT capital and labor costs, but often there are user related costs to any upgrade, and these costs could be even higher than the direct costs depending on the upgrade scenario. When an upgrade is performed, some organizations offer training for users, although experience with Windows XP illustrated that most users were upgraded without formal training programs. However, even without formal training, users will need independent learning time, and this labor should be accounted for as part of the migration costs. Some upgraded users may also have to migrate their own data or settings (if tools are not used to automate this process), or may not be upgraded correctly and experience issues – having to call the help desk for problem resolution, resulting in downtime. On average the additional costs are expected to be \$30 to \$250 per PC.

In total, an accelerated upgrade to Vista is expected to cost from \$190 to \$310 in direct IT costs, and an additional \$30 to \$250 in indirect costs.

A less expensive way to achieve migration is to let the upgrade occur naturally – obtaining Vista only when PCs are replaced / preinstalled from the PC vendor, often called managed diversity. Under this program, PCs are replaced as they mature with new hardware, and when this hardware is configured, it arrives with Vista already included in the purchase price and installed. However, the hidden cost of this strategy is the lack of standardization – where the IT organization will need to support a mixed environment of legacy Windows XP / XP SP2 desktops with new Vista platforms.



Source: Alinean Infrastructure Optimization Business Value Analyst v1.0 - 2006

The Bottom-Line: Real ROI from Vista?

From these reviews, Vista is by all accounts a better operating system than any prior Windows version, however from a business case perspective, the view is not so clear.

Crunching the numbers for a typical Standardized company, the investment for an immediate in-place Vista migration will require organizations to spend a minimum of \$190 in direct migration labor, licensing and IT training per PC (without consideration for hardware upgrades or soft costs).

With between only \$53 to \$71 in expected annual IT labor savings for Vista, comparing the ratio of net direct IT savings to in-place migration costs over a three year analysis period yields a marginal ROI of between -14% to +15%. It is difficult, if not impossible to make the case for Vista on IT labor savings or other direct IT cost savings alone.

It is clear that for the business case for Vista to be compelling, the analysis needs to extend beyond just IT labor savings, and include user / business benefits such as the potential for enabling new applications, performance improvements, improved search productivity, power management savings, improved systems availability and security improvement, and reduction in end user operations costs. Perhaps including the benefits of the Vista upgrade with Office could provide a more compelling case.

However, including these benefits is difficult in a credible business case. Even though many of these benefits can be achieved with Vista, the quantification of the value of these improvements is difficult to project and realize as true bottom line or competitive improvements. Including these softer benefits can yield up to \$150 per PC per year in incremental benefits (\$68 potential savings from power management improvements alone). With these benefits included, the ROI jumps to almost 200% plus, but when the soft costs are also included to offset the soft benefits, again the business case for accelerated Vista deployment becomes more marginal.

Although many want to deploy Vista early to help reduce IT costs, and may be considering an accelerated upgrade, it is difficult to make the case for Vista alone on this basis. The following is clear from our applying early research and modeling of various upgrade scenarios:

1. With only \$53 to \$71 in available IT savings, Vista deployment costs need to be kept as low as possible in order to generate a positive business case. Migration is using a managed diversity approach (when systems age, replace them with Vista already installed from the PC vendor at no additional charge) may be the way organizations can best keep costs minimal and achieve a positive business case.
2. Vista used as a key component to help implement infrastructure optimization best practice improvements can yield significant benefits of up to \$430 per PC per year, easily justifying most upgrade costs. Vista has clearly demonstrated the ability to make these practices less expensive to implement and more sustainable.
3. The business case for Vista can be better if the organization can substantiate end user savings and business improvements in conjunction to direct IT labor savings. Including end user and business benefits such as reduced power consumption, improved availability and search can help justify an accelerated upgrade. Including the upgrade and value from an Office upgrade performed in conjunction with Vista could provide additional business benefits that offset the cost of change.

The view of Vista can include ROI, but in order to see real value requires a change of perspective – one which includes Vista as part of a natural migration, broader infrastructure optimization or business productivity initiative.

About Alinean

Since 1994, the Alinean team has been the pioneering builder of tools to help quantify and improve the ROI and TCO of IT investments. Alinean was named for the Spanish word for “Align”, matching the Alinean mission as the leading developer of analytical tools to help IT vendors, consultants and IT executives align IT investments with business strategies.

The Alinean team has over a decade of experience in the practical development and application of ROI and TCO methodologies, models and tools to optimizing IT investment decision making. In 1994, the Alinean team formed Interpose, the original pioneers of ROI tools, developing analytical software for over 50 major IT vendors and consulting companies worldwide, and creating the industry standard TCO Manager and TCO Analyst software. Interpose was sold to Gartner in 1998, where the team continued their developments and marketing of ROI and TCO software tools. The original team reunited to form Alinean in 2001, once again becoming the leading pioneers and developers of ROI sales and analytical tools. Current customers include leading IT solution providers such as HP, IBM, Dell, Intel, Symantec, NetIQ, EMC, SAP, Oracle, SBC, and Microsoft, as well as leading consultancies and Global 1000 companies.

Additional information about Alinean, helpful ROI educational resources and Free ROI tools to help drive better IT decisions can be found at <http://www.alinean.com>.

About the Author

Tom Pisello is currently the CEO and founder of Alinean, the IT Value Experts, and an ex-Managing VP at Gartner. He has been dedicated to using business value measurements to prove and improve the return on IT for the past 16 years.