

Achieving Long-term Business Value with Intel® vPro™ Technology

We see Intel vPro technology as a core capability for improving system defense, asset discovery, remote builds, virtualized client usages, and device-independent computing.

Executive Overview

Recognizing Intel® vPro™ technology's significant business value, Intel IT made a strategic decision three years ago to standardize our computing platform on PCs—both laptop and desktop—with Intel® Core™ vPro™ processors. PCs equipped with Intel Core vPro processors include a variety of technologies that enhance IT and end-user efficiency, including Intel® Active Management Technology (Intel® AMT), Intel® Virtualization Technology for Directed I/O (Intel® VT-d), Intel® Virtualization Technology (Intel® VT-x), Intel® Trusted Execution Technology (Intel® TXT), and Intel® Anti-Theft Technology (Intel® AT). These technologies can help meet our most critical challenges—boosting employee productivity, enhancing information security, and improving IT efficiency and business continuity.

We are already benefitting from this decision. In particular, some user segments employ Intel VT-d and Intel VT-x to enhance high-performance client computing support of multiple OS environments, and we'll be rolling out remote PC management using Intel AMT to 95 percent of our user base by early 2011.

At the root of our successful roll out of Intel vPro technology is a methodical implementation plan that has prepared our infrastructure to take advantage of the technology—very similar to our approach to implementing other major technological changes, such as wireless computing. We have also developed a set of IT best practices for deploying and provisioning Intel vPro technology, and have worked closely with Intel product groups to help define and refine each of Intel vPro technology's features so that they address core IT and business needs.

We have identified several use cases that offer the best long-term return on investment (ROI). These use cases include:

- Remote diagnosis/remote repair
- Remote diagnosis/local repair
- Remote configuration

We estimate we will achieve savings of USD 500,000 per year from Intel vPro technology's remote repair and management capabilities.

For other Intel vPro technology features, such as Intel TXT and Intel AT, we are still investigating how these capabilities can meet our business requirements. We continue to actively develop and test use cases and plan pilot projects.

We see Intel vPro technology as a core capability for improving system defense, asset discovery, remote builds, virtualized client usages, and device-independent computing. By provisioning Intel vPro technology across our enterprise, we anticipate enhanced user productivity and reduced IT costs due to fewer service calls and faster response times.

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The IT@Intel program connects IT professionals around the world with their peers inside our organization – sharing lessons learned, methods and strategies. Our goal is simple: Share Intel IT best practices that create business value and make IT a competitive advantage. Visit us today at www.intel.com/IT or contact your local Intel representative if you'd like to learn more.

BACKGROUND

Intel IT's mission is to use IT investment to support Intel's growth and create value for our business. Our organization is accountable for boosting employee productivity, safeguarding data and intellectual property, and improving IT efficiency and business continuity. We use technology to manage our environment more efficiently so we can focus our resources on innovation.

Intel's worldwide computing environment includes more than 100,000 PCs. At Intel, as at most companies, managing and securing these PCs consumes considerable IT resources. To increase our ability to maintain, manage, and protect PCs while driving down management costs, three years ago we engaged in a multi-year initiative to implement Intel® vPro™ technology throughout our environment. Intel vPro technology, a hardware-based capability built into desktop and laptop PCs, enables us to perform remotely many functions that previously required on-site support. It is an underlying capability that we can use for incident resolution, asset discovery, and increasing enterprise security.

Implementing a solution that significantly transforms the way we manage and support our PC fleet involves more than simply acquiring and provisioning machines that include the technology. As with wireless technology, we have taken a measured, methodical approach to launching Intel vPro technology in our environment, introducing capable hardware as well as the infrastructure to take advantage of it. As part of our standard PC refresh cycle, we have been deploying and provisioning PCs with Intel vPro technology, and we expect 95 percent of our fleet to be capable by early 2011.

IMPLEMENTING INTEL® vPRO™ TECHNOLOGY IN OUR ENVIRONMENT

To create an infrastructure that supports the capabilities of Intel vPro technology, we designed an implementation plan, identified the most valuable use cases, developed a use case implementation roadmap, adjusted our support processes, and upgraded our PC management console.

This methodical approach enables us to gain the most business value from each capability and is very similar to our approach to implementing other major technological changes, such as wireless computing.

Initial Planning Process

Our initial planning process for introducing Intel vPro technology into our environment included three elements: architecture, engineering, and operations.

ARCHITECTURE

To integrate our client manageability solution into our business strategy, capabilities roadmap, and governance framework, we considered future client hardware and software solutions; emerging technologies and computing models, such as virtualization and streaming applications; and data center trends that could impact our client management infrastructure.

ENGINEERING

Our engineering teams defined the architecture and assessed technical requirements in terms of infrastructure, applications, platforms, and provisioning processes. They also integrated the new solution with existing security measures to help ensure secure client management across the enterprise.

Origins of Intel® vPro™ Technology

Many of the ideas around Intel vPro technology—and the engineers that helped to deliver this technology—first started in Intel’s own IT organization.

Intel saw the value of embedding technologies in business platforms that could help IT shops meet their challenges and requirements. In order to plan, design, and create these technologies, Intel formed a new group with some of Intel IT’s key engineers and architects to focus on these new, embedded capabilities.

Today Intel IT continues to work closely with that Intel business unit, as we continue to evaluate technologies, provide input, and help influence the final products that many IT shops use today.

OPERATIONS

To transition from provisioning Intel vPro technology to using it to achieve business value, we developed an adoption strategy that would help us achieve long-term return on investment (ROI) and a smooth and successful implementation. Our approach included application and technology layers as well as business and data layers.

Developing a Use Case Roadmap

Rather than trying to maximize our short-term returns, we identified and implemented use cases that delivered meaningful value with minimal effort. By initially restricting our implementation to a handful of use cases, we could give our support agents and end-users time to get used to the new capabilities and processes, rather than overwhelming them with too much change all at once.

Our use case implementation methodology included the following steps:

1. Identifying the highest-priority use cases.
2. Performing ROI analysis.
3. Building a use case implementation roadmap.
4. Developing future process flows for the new use cases.
5. Performing a gap analysis for each use case to identify the changes required for implementation.

Currently, we are using Intel vPro technology on both laptop and desktop PCs in the following use cases:

- **Remote diagnosis/remote repair.** A PC that is inoperable due to a software issue, such as a missing or corrupt system file, can be diagnosed and repaired remotely, with no need for a technician to physically touch the machine. This approach is much faster, less costly, and less disruptive to the user.
- **Remote diagnosis/local repair.** A PC with a failed hardware component, such as a hard drive, can be diagnosed remotely, and the depot can be notified in advance of specific parts requirements. This can significantly reduce the mean time to repair.
- **Remote configuration.** A PC requiring a BIOS update, such as a hard drive password update or other pre-OS state configuration change, can be diagnosed and resolved remotely. Again, this approach is much faster, less costly, and less disruptive to users.

We have several additional use cases planned, including system defense, asset management and inventory, off-campus remote repair, Keyboard-Video-Mouse (KVM) Remote Control, and encryption.

Changing Our Support Processes

We had to define new processes, create detailed scripts for handling specific incidents and service requests, and develop or modify tools.

- **Processes.** All new processes had to be aligned with the Information Technology Service Management processes we were already using.
- **Scripts.** Pre-written scripts helped agents talk through the steps required for using Intel vPro technology to resolve each incident.
- **Tools.** In some cases we needed to develop new tools, such as a provisioning status tool that identifies whether a user’s system is manageable using Intel vPro technology. In other cases we needed to modify existing tools, such as our incident management tool, which needed to be able to capture data for Intel vPro technology-related use cases.

In addition to training our support agents to use Intel vPro technology to respond remotely to service requests, we also wanted them to act as an extension of our product team by identifying new ways to use Intel vPro technology. We encouraged support agents to think in new ways, and we provided incentives for coming up with new ideas.

Refining Our Intel vPro Technology Management Console

In 2007, when we first began testing Intel vPro technology, we needed to identify a management console that best fit our needs, integrating with our existing PC management roadmap and with our computing environment. We chose one based

Overview of Intel® vPro™ Technology

A component of Intel® Core® vPro™ processors, Intel® vPro™ technology is a combination of processor technologies, hardware enhancements, management features, and security technologies that allow remote access to the PC—including monitoring, maintenance, and management—independently of the state of the OS or power state of the PC.

Table 1 summarizes many of the capabilities of Intel vPro technology and the business benefit of each feature.¹

Table 1. Intel® vPro™ Technology Features and Benefits

Business Need	Feature	Benefit
<ul style="list-style-type: none"> Reduce IT costs Improve business continuity Increase employee productivity Support highly mobile PC fleet 	Intel® Active Management Technology (Intel® AMT), including Keyboard-Video-Mouse (KVM) Remote Control	<ul style="list-style-type: none"> Reduces costly desk-side support visits, speeds diagnosis and repair times, and enables remote, out-of-band management of wired and wireless PCs even when the OS is non-functional. Allows Service Desk technicians to remotely manage PCs using a management console.
<ul style="list-style-type: none"> Improve information and data security 	Intel® Anti-Theft Technology (Intel® AT)	<ul style="list-style-type: none"> Protects valuable enterprise data and intellectual property, as well as the hardware itself, by detecting theft and disabling a laptop if it is lost or stolen. Allows remote disabling of a PC, as well as remote re-activation.
<ul style="list-style-type: none"> Decrease security threats and malware 	Intel® Trusted Execution Technology (Intel® TXT)	<ul style="list-style-type: none"> Enhances platform security by protecting a laptop against software-based attacks and protecting the confidentiality and integrity of data stored or created on the system. Allows applications to run within their own space, protected from all other software on the system.
<ul style="list-style-type: none"> Support service flexibility and IT consumerization Improve employee productivity 	Intel® Virtualization Technology for Directed I/O (Intel® VT-d) and Intel® Virtualization Technology (Intel® VT-x)	<ul style="list-style-type: none"> Provides greater flexibility and maximum system utilization by consolidating multiple environments onto a single server, workstation, or PC. Enables simplified resource management, greater system reliability, and lower hardware acquisition costs, and is the foundation of a virtualized client roadmap in IT.

¹ See also “The All New 2010 Intel® Core™ vPro™ Processor Family: Intelligence that Adapts to Your Needs”. Intel Corporation, January 2010. <http://download.intel.com/products/vpro/whitepaper/crossclient.pdf>

on its flexible support for our existing toolset as well as for other uses in the enterprise.

At first, we provisioned only desktop PCs using the management console. In 2008, we created an automated remote provisioning-on-demand tool that lab technicians can use during PC builds for both laptop and desktop PCs.

Additionally, our initial provisioning process could take place only over hard-wired LANs. However, approximately 80 percent of Intel’s workforce uses laptop PCs with wireless connections to the network. It was imperative to be able to use Intel vPro technology to provision and manage these mobile business PCs as well. However, managing clients over a wireless network adds complexity including

security, authentication, and stability issues. For example, a laptop with a wireless connection changes its location and IP addresses many times per day.

We are constantly improving our provisioning process to address changing business needs. For example, during 2010, we changed our management console, which required us to re-provision our entire PC fleet. We also upgraded the tool to include scheduled PC refreshes, in order to release machines that are already provisioned. To accommodate wireless network connections, we also developed a tool that identifies when a machine is connecting to LAN, even momentarily, and immediately triggers

provisioning. These changes enable us to use automated, zero-touch provisioning from the server side for the majority of our user base.

USING INTEL vPRO TECHNOLOGY

We have conducted proofs of concept (PoCs) to test select Intel vPro technology capabilities, and we are currently using a number of these capabilities in our production environment. We are still in the preliminary phase of investigation for other product features.

Enabling Multiple OS Environments on a PC

We have standardized our fleet on mobile business PCs based on Intel® Core™ i5 vPro™ processors; some will soon use Intel® Core™ i7 vPro™ processors. These systems include Intel® Virtualization Technology. Virtualization solutions enhanced by Intel vPro technology enable a platform to run multiple OSs and applications as independent virtual machines. This allows one computer system to function as multiple virtual systems.

For some user segments, we are using Type-2 virtualization supplied by Intel® Virtualization Technology for Directed I/O (Intel® VT-d) and Intel® Virtualization Technology (Intel® VT-x) to support a mixed Linux* and Microsoft Windows* environment. In this scenario, the hypervisor runs on the main OS, and a secondary guest OS runs on top of the main host OS. With support from the processor, chipset, BIOS, and enabling software, Intel VT-x and Intel VT-d improve traditional software-based virtualization by providing more streamlined software stacks and “near-native” performance characteristics.

By using Intel VT-x and Intel VT-d, we are able to consolidate multiple environments onto a single PC, thereby reducing our hardware acquisition costs. Also, with Intel vPro technology enabled on these client PCs, we have found that they perform up to 11 percent faster.²

Enabling Better Remote Management of PCs

Intel® Active Management Technology (Intel® AMT) enables us to remotely manage PCs, including diagnosis, repair, and shutdown, thereby reducing the number of costly desk-side support visits from IT technicians. This remote management is possible even for PCs with encrypted hard drives.

² “Delivering Virtualization Benefits By Refreshing Client PCs.” Intel Corporation, July 2008.

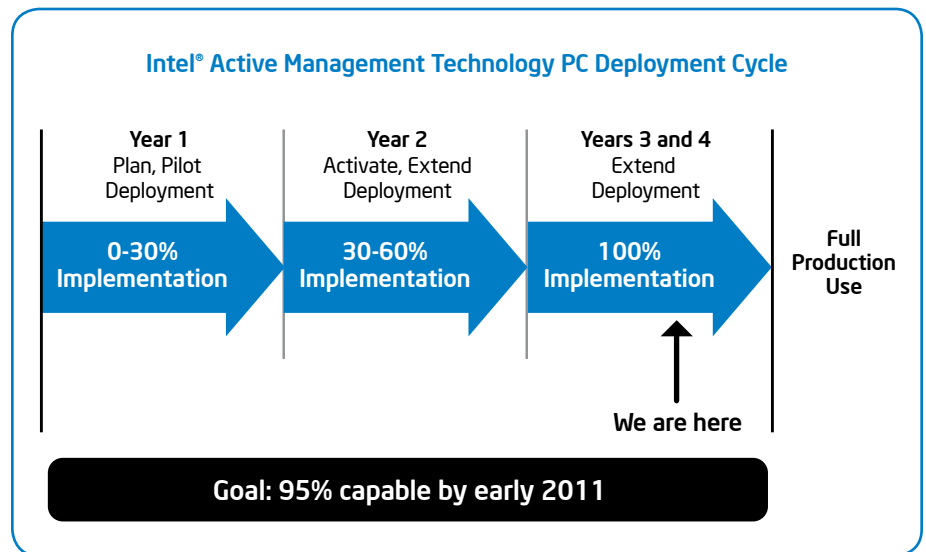


Figure 1. We have taken a methodical, multi-year approach to implementing Intel® Active Management Technology into our environment.

We plan to provision Intel AMT on 95 percent of our entire PC fleet—both laptops and desktops—by early 2011; the remaining 5 percent includes some lab PCs and older systems for which Intel vPro technology is not appropriate. At that time, we will have identified all Intel AMT use cases and developed a use-case implementation roadmap. Figure 1 illustrates our methodical approach to implementing Intel AMT.

REMOTE DISK ENCRYPTION PASSPHRASE RESET

We are currently conducting a PoC to further evaluate Intel AMT’s disk encryption passphrase reset capability and its integration into the web portal of support tools used by Service Desk technicians. So far, the results have been very positive—Service Desk technicians are reporting that Intel AMT has reduced customer interaction time from 45 minutes to approximately six minutes on average. This represents a significant potential for support cost reduction, since, of the encryption-related calls the Service Desk receives, about sixty percent are due to forgotten passphrases.

Once the PoC concludes, we will engage in a two-week evaluation with production

users; we then anticipate rolling this feature out to production.

REMOTE DIAGNOSIS AND REPAIR

Keyboard-Video-Mouse (KVM) Remote Control is another feature of Intel AMT that we plan to use. KVM Remote Control can give our technicians full control of users’ computers along with the ability to see what is on the monitor—even if the OS crashes. We have developed several use cases where we can take advantage of KVM Remote Control, and anticipate KVM Remote Control will significantly reduce the time Service Desk technicians spend solving some of the common service calls. We estimate we will achieve USD 500,000 per year in savings from Intel vPro technology’s remote repair and management capabilities.

REMOTE OS UPGRADES

Intel vPro technology’s remote management capabilities are also invaluable during OS upgrades. We are in the midst of a major OS upgrade to Microsoft Windows 7* and plan to use Intel vPro technology to deliver the new OS remotely and to empower users to rebuild their own systems.

REMOTE TRAINING ROOM SUPPORT

We also conducted a pilot project in our remote training rooms that demonstrated how Intel AMT can reduce support costs for desktop PCs.³ We used Intel vPro technology, along with ISV management software, to address management and performance challenges across Intel's geographically dispersed training rooms. We remotely performed rebuilds, installs, and security updates that previously required on-site support. The pilot project results indicated that we could expect a 65 to 75 percent reduction in technician time spent per remote software install. We also anticipate other benefits, such as running more demanding applications and using training rooms more efficiently. This pilot showed a 150 percent ROI in its second year, as well as an opportunity to eliminate 50 percent of remaining desk-side visits.⁴

Investigating Other Intel vPro Technology Capabilities

Intel vPro technology offers several other features that we are still investigating, including Intel® Anti-Theft Technology (Intel® AT), Intel® Trusted Execution Technology (Intel® TXT), and security solutions.

THEFT DETERRENCE

Each year, 2 million laptop PCs are stolen, and 97 percent of these are never recovered.⁵ This represents a huge risk to enterprises in terms of lost hardware and, more importantly, lost data and intellectual property. Intel AT can help detect theft and disable a laptop if it is lost or stolen.

Even in the case of an exiting employee who steals a laptop and therefore knows the encryption keys, Intel AT enables IT technicians to disable the laptop remotely and prevent unauthorized access to the data on the laptop.

Our initial evaluation of Intel AT indicates that Intel AT will improve our ability to protect company-owned laptops as well as data and intellectual property. We are now conducting a higher-level PoC. In this PoC, we are working with our encryption supplier to test how seamlessly Intel AT and our encryption software operate. Our goal is for a Service Desk technician to be able to mark a system as lost or stolen when a user calls to report a misplaced or stolen PC; when the PC next connects to the network or to the Internet, a poison pill will waiting for the system, automatically disabling it. And, if the stolen PC fails to connect to the network within a specific period of time, it enters a "stolen" state, and the user has to call the Service Desk for a recovery token.

Currently the PoC includes Intel users across the United States; future phases will include worldwide and external users.

HARDWARE-ASSISTED VIRTUALIZATION

Although we are already using Intel VT-x and Intel VT-d in a Type-2 virtualization environment, we are further evaluating these features along with Intel TXT in a Type-1 hypervisor environment, where the hypervisor runs directly on the hardware, instead of on the main OS. We plan to conduct a PoC later this year using these technologies across 100 to 150 clients dispersed throughout different user segments.

In this PoC, we will be using these technologies at a lower level, providing multiple OSs on a platform but completely isolated from each other, much like the virtualization environment in today's server platforms. We anticipate that the PoC will illustrate benefits in several areas of client computing:

- Assigning network interface cards (NICs) to corporate virtual containers.

- Splitting multiple NICs across multiple containers.
- Assigning resources such as compute and memory across separate computing environments.
- Assigning audio and video devices to virtual containers to facilitate collaboration.
- Besides cutting hardware acquisition costs, since one machine can take the place of several, hardware-assisted virtualization also enhances system performance and improves security by isolating multiple environments on a single PC. In addition, we hope that this approach to virtualization will lead to better support models for IT consumerization, where users access corporate data with their own devices.

SECURITY SOLUTIONS

Intel vPro technology delivers the ability to securely manage PCs over networks, and also provides an infrastructure and a set of capabilities that can be used to implement a broad range of additional management and security functions. With this in mind, we identified three security use cases that we could implement using Intel vPro technology:

- e-Discovery and investigations
- Data protection and loss prevention
- System health and updates

With Intel vPro technology, we can perform each of these security use cases remotely using features such as remote, redirected boot; console redirect; and agent presence checking. This could deliver benefits such as fewer labor-intensive desk-side visits, increased security, and greater user productivity. We successfully conducted lab tests to validate each use case, and we plan to further investigate these use cases for enterprise deployment.⁶

⁶ "New Security Solutions Using Intel® vPro™ Technology," Intel Corporation. February 2009.

³ "Managing Training Rooms with Intel® vPro™ Processor Technology," Intel Corporation. April 2007.

⁴ "Reducing IT Resource Needs and Service Costs through Intel® Core™ 2 Processor with vPro™ Technology," Intel Corporation. 2008.

⁵ Evers, Joris. "Getting over laptop loss." CNET News. June 30, 2006. http://news.cnet.com/Getting-over-laptop-loss/2100-1044_3-6089921.html

BEST PRACTICES FOR DEPLOYING AND PROVISIONING INTEL vPRO TECHNOLOGY

Intel vPro technology's set of capabilities has a far-reaching impact on our infrastructure and processes. To successfully manage the introduction of the technology into our environment, we have developed a series of best practices.

In particular, we made several critical decisions very early in the deployment and provisioning stage. Also, as we continued to deploy and provision Intel vPro technology, our service technicians gained valuable experience. Finally, we also made some changes to our infrastructure to help ensure it could support and benefit from Intel vPro technology.

Major Decision Points

We made several strategic decisions prior to deploying and provisioning Intel vPro technology that enabled us to gain the most business value from each capability.

- **Computing platform choice.** Before provisioning any capabilities, we needed to make sure our PC fleet could support Intel vPro technology. Three years ago, we standardized on desktop and laptop PCs equipped with Intel Core vPro processors, deployed as a part of our standard refresh cadence. As we enable specific Intel vPro technology features, our client refresh cycle prepares our enterprise to use these features.
- **Pilot project development.** Pilot projects provide a safe zone for learning how to use and support a new technology, and help ensure the technology fully integrates with the computing infrastructure. When planning pilot projects for Intel vPro technology features, we expanded the

pilot project team to include infrastructure owners. In this way, we helped ensure the infrastructure, such as the Domain Name System (DNS), was ready to support Intel vPro technology and wouldn't become an implementation bottleneck.

- **Provisioning decisions.** We learned that it is most efficient to "touch" a system only once. We now deploy machines with Intel vPro technology activated. Remote, automated provisioning is the most cost-effective provisioning method, as is provisioning systems during scheduled PC refresh.
- **Use case selection.** We learned that simple, reliable use cases provided the best results in terms of ROI and technology adoption. We also learned that involving the operations team at the beginning of the use case selection process enabled us to identify the most critical areas and existing gaps between the use case and current capabilities.
- **Management console selection.** We selected a management console that could support our Intel vPro technology provisioning process, as well as integrate seamlessly into our existing infrastructure and processes.

As we continue with full-production implementation, we can benefit from these decisions to maximize the business value we derive from Intel vPro technology.

Gaining Implementation Experience

We have modified our practices since we first began to implement Intel vPro technology in our environment in 2007. At that time, we deployed the technology in our PC standard build but did not immediately provision, or activate, the technology. However, we discovered this approach was inefficient and required us to "touch" a PC twice, which increased costs. We now actively provision systems when we deploy new hardware.

We also considered waiting to upgrade our management tools and processes until we had a large pool of provisioned systems. However, after closer analysis, we realized we could achieve significant ROI by upgrading our tools and processes earlier rather than later. By taking this approach, our support teams have gained experience with the new tools, and we expect to see our returns increase dramatically as we adopt additional use cases.

Over the last three years, as we have implemented Intel vPro technology in our enterprise, we have worked closely with Intel business groups to develop new use cases and discover ways we can use the technology for more than just PC management. As a result, the technology now also includes features that enhance employee productivity and address major IT concerns, such as information security and support for client virtualization.

Computing platform choice, development of pilot projects, provisioning decisions, and use case selection are all important areas in which we achieved key learnings.

Readying Our Infrastructure

Our DNS is very large—more than 120,000 systems. Because of this complexity, the DNS refreshes only about every 15 minutes. But with the advent of Intel vPro technology, we discovered this was not adequate—if a user called the Service Desk, we might not be able to locate and communicate with the user's PC for a significant length of time. To circumvent this problem, we used several different OS-specific protocols, separate from the DNS and HTTP protocols, to help identify and locate PCs.

Intel vPro technology also requires a public key infrastructure (PKI), and we needed to address several PKI issues, including firewall settings, security certificates, and disk encryption passphrases. We needed to enable solutions to these issues not only across the hard-wired LAN, but on our wireless LAN as well.

CONCLUSION

With its hardware-assisted manageability, security, and virtualization features, Intel vPro technology can boost employee productivity, enhance information security, and improve IT efficiency and business continuity. By early 2011, we plan to deploy and provision Intel vPro technology to 95 percent of our use base.

Already, our PoCs have demonstrated that Intel vPro technology can provide measureable improvements in system performance and has the potential to substantially reduce IT support costs.

- **Virtualization.** By using Intel VT-d and Intel VT-x to support a mixed OS environment, we have found that these systems perform up to 11 percent faster, and we can reduce hardware acquisition costs.
- **Remote management.** One PoC demonstrated that Intel AMT can reduce

the time Service Desk technicians spend helping users reset their disk encryption passphrase from more than 25 minutes to about six minutes. Another PoC that involved using Intel AMT to manage desktop PCs in remote classrooms suggested that Intel vPro technology could reduce on-site support requirements. Overall, we anticipate savings of USD 500,000 annually from Intel vPro technology's remote repair and management capabilities.

Because it represents a major shift in technology, similar to the advent of wireless computing, we realized early on that implementing Intel vPro technology would affect all parts of the enterprise and must be carefully planned and implemented. First, we standardized our computing platform on desktop and laptop PCs equipped with Intel vPro processors. We also created an implementation plan, defined a set of valuable use cases, and developed a set of best

practices for deploying and provisioning Intel vPro technology across the enterprise. As we continue to develop and test additional use cases, we will be able to further benefit from Intel vPro technology's capabilities.

FOR MORE INFORMATION

"3 Use Cases with Intel® vPro™ Technology" video www.intel.com/it/client.htm

"Evaluating Hardware-based Keyboard-Video-Mouse (KVM) Remote Control." http://download.intel.com/it/pdf/Evaluating_HW-based_KVM_Remote_Control.pdf

"Evaluating Intel® Anti-Theft Technology." http://download.intel.com/it/pdf/Evaluating_Intel_Anti-Theft_Technology.pdf

"New Security Solutions Using Intel® vPro™ Technology." http://download.intel.com/it/pdf/New_Security_Solutions_Using_Intel_vPro_Technology.pdf

ACRONYMS

DNS	Domain Name System	Intel® VT-x	Intel® Virtualization Technology
Intel® AMT	Intel® Active Management Technology	KVM Remote Control	Keyboard-Video-Mouse Remote Control
Intel® AT	Intel® Anti-Theft Technology	NIC	network interface card
Intel® TXT	Intel® Trusted Execution Technology	PKI	public key infrastructure
Intel® VT-d	Intel® Virtualization Technology for Directed I/O	PoC	proof of concept
		ROI	return on investment

For more information on Intel IT best practices, visit www.intel.com/it.


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