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SPEED UP.

Raise business productivity and save costs with
Lenovo ThinkVantage Technologies for your PCs.



THERE'S **MORE THINKING** IN **ThinkVantage** Technologies



In today's environment, Information Technology (I.T.) must deliver monetary savings back to the business. This is where Lenovo® PCs have a unique advantage over the competition as they offer a suite of tools—ThinkVantage® Technologies—that leverage both hardware and software to reduce I.T. support and other 'hard' costs, as well as the total cost of ownership of PCs. Most of these solutions are free on Lenovo ThinkPad® and ThinkCentre® systems and are available for a modest charge on other PCs.

Studies indicate that the expenditure incurred at the time of purchase of a PC is less than 20%¹ of its total cost. The remaining 80%¹ is expenses incurred during the PC's lifetime. These expenses include actual dollars spent, as well as loss of productivity. ThinkVantage Technologies aggressively target reducing these hard costs—associated with imaging, deploying, supporting and disposing of PCs—which comprise at least half of this 80%¹. By delivering these savings, ThinkVantage Technologies enable you to focus on more strategic issues facing your business and increase overall profitability.

Read on to find out how you can add more to your bottom line by successfully implementing ThinkVantage Technologies in your organisation.

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Think Savings. ThinkVantage.

20%¹

PURCHASE COST

80%¹

MAINTENANCE COST

COST OF DEPLOYING
THE NEW PC

COST OF ASSET MANAGEMENT

COST OF SOFTWARE AND
HARDWARE UPDATES

COST OF KEEPING
THE PC PROTECTED

COST OF OUTAGES DUE
TO REPAIRS, UPDATES ETC.

COST OF SECURELY
DISPOSING THE SYSTEM

COST OF RE-IMAGING

COST OF I.T. STAFF
AND OTHER I.T. VENDORS

THERE'S MORE THINKING IN ThinkVantage[®] Technologies



THINKVANTAGE ACCESS CONNECTIONS™

In today's highly mobile world, employees spend a lot of time manually configuring connectivity, security settings and printers as they move from location to location. These changes can often create issues, resulting in associated technical support costs.

Stay connected. Stay profitable.

ThinkVantage Access Connections™ helps save time by allowing users to seamlessly switch many of their settings as they move from location to location. In fact, it's so convenient they can change network settings, security settings, set default web pages and default printers, as well as handle WAN, Wi-Fi, Ethernet and Bluetooth® connections, through a single simple user interface. In addition, Access Connections™ helps I.T. departments to improve security through centralised management of connectivity and reduces technical support costs through automated end-user profile management.



ThinkVantage Access Connections™ delivers uninterrupted connectivity.

"The biggest benefit we have seen with the ThinkPad, is the innovative design of its wireless antenna, which is embedded into its frame. This gives us excellent wireless performance as it covers the blind spots previously unreachable."

- Mr Chow Teng Mun,
Information Technology Director for Asia Pacific,
ModusLink Global Solutions

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THINKVANTAGE SYSTEM MIGRATION ASSISTANT™

Migrating employees from one system to another is a time consuming, complex process. They need to be assured that all their files, e-mails, browser data and other personal settings are quickly and accurately migrated. This helps them to start being productive as fast as possible without depending on expensive support.

Save time. Cut costs.

Here's where ThinkVantage System Migration Assistant™ (SMA) comes in—a unique solution that helps to simplify and automate the migration process. Flexible and customisable, SMA helps you save both time and money that can then be invested in pursuing more strategic corporate projects.



Lenovo enables Dow Chemical to slash data migration time globally.

The Dow Chemical Company needed to deploy its new Lenovo solution quickly and seamlessly to more than 44,000 employees working in 160 countries without disrupting customer service or day-to-day activities. Using System Migration Assistant™, individual migration time was reduced by a significant

75% while migrating data and personal settings (bookmarks, e-mail settings, etc) to Think PCs. Lenovo's innovative PCs and tools allowed us to complete the entire migration process in six months.

- **Mack Murrell**,
Vice President, Information Systems,
Dow Chemical

THERE'S MORE THINKING IN ThinkVantage Technologies



THINKVANTAGE ACTIVE PROTECTION SYSTEM™

When employees are on the move all the time, accidents are inevitable. However, these accidental drops or bumps can increase the possibility of hard disk drive failures, which in turn increase support costs and often requires replacement of the drive.

Typical hard disk drive failures like this can set your business back by about USD 180 per occurrence². This is where a solution like ThinkVantage Active Protection System™ (APS) helps you by protecting your data against losses caused by accidents.

Notebooks fall. Profits don't.

Like an airbag's sensor, Active Protection System™ detects sudden changes in motion and temporarily protects the hard disk drive to keep your valuable data safe during accidental drops. With Active Protection System™ you also get up to four times greater protection from impact than in systems without it. This can improve your system's reliability and lower hard disk drive failure rates that, in turn, result in reduced costs.



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THINKVANTAGE CLIENT SECURITY SOLUTION



All businesses are concerned with securing their I.T. environment in today's unpredictable and fast changing world. The challenge is that the more you try to secure a PC, the more difficult it becomes to manage and use.

ThinkVantage Client Security Solution (CSS), preloaded on Lenovo notebooks and desktops, safeguards data by using dedicated security hardware (built-in Trusted Platform Module) to protect passwords and digital certificates. This hardware is combined with software to securely manage passwords and the users logon credentials—a process made easier to use by leveraging biometrics. Fingerprint readers are standard on many ThinkPad models, and fingerprint keyboards are optional on all Lenovo ThinkCentre desktops.

Hardware Password Manager

Lenovo has also introduced an innovative, fee-based feature called Hardware Password Manager (HPM). The first of its kind in the market, HPM makes it possible for an I.T. department to centrally manage all the hardware passwords on a PC—through a highly secure interface—using standard Active Directory password management in Microsoft® Windows®. Together with self-encrypting drives that support these hardware drive passwords, HPM provides incredibly high security with high manageability and ease of deployment and usage.

Protect and profit from PC security.

A 2008 FBI survey notes that “dealing with loss of either proprietary information or loss of customer and employee confidential data averaged at approximately USD 241,000 and USD 268,000 [per incident], respectively.” Securing your PCs helps protect your company from security breaches and returns cost savings to the bottom line. Your company also has the potential to save approximately USD 126 in hardware and software by not having to buy hardware security tokens, smart card readers or other add-on security devices.

THERE'S MORE THINKING IN ThinkVantage Technologies



THINKVANTAGE POWER MANAGER™

Traditionally, organisations wanting to save power had one simple decision to make—turn the PCs off or leave them running 24 hours per day. More often than not, users and the I.T. department found it much easier to leave the PCs running overnight. However, I.T. also plays an important role in supporting the company's environmental initiatives by using energy-saving resources to save the company money.

ThinkVantage Power Manager™ is an exclusive solution offered by ThinkPad notebooks and ThinkCentre desktops. This feature enables I.T. managers to control power levels, screen brightness and other energy-consuming features on each PC. So enterprises can minimise their carbon footprint and their energy bills.

Saves energy. Saves money.

By switching off or powering down PCs during periods of inactivity—such as at night or over the weekend—ENERGY STAR™ estimates that firms can save anywhere between USD 25 to USD 75 per PC, per year. In addition, the Lenovo Energy Calculator compared two ThinkCentre products and learnt that the current generation system reduces electricity usage by up to 69%³ as compared to a system not running Power Manager™.

To learn more, check out the Lenovo Energy Calculator http://www.lenovo.com/social_responsibility/us/en/environment.html and read our Energy Best Practices White Paper <http://www.lenovo.com/thinkvantage>



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THINKVANTAGE RESCUE AND RECOVERY®

Supporting employees when they have technical issues is expensive for I.T. departments. The more mobile the workforce, the more expensive and difficult support can be to deliver.

Recover fast. Keep the profits flowing.

Lenovo customers have seen a reduction in support costs and desk-side support visits simply by deploying ThinkVantage Rescue and Recovery®—a single button that helps you diagnose and recover from a system crash. This solution enables an end-user to restore the operating system and all PC applications to a previously working state as well as retain the most recent data files, in the case of a crash. In addition, Rescue and Recovery® includes an array of other support utilities that can improve productivity and reduce technical support costs. Since PC support costs are a significant part of your budget, fewer I.T. repair calls and less downtime automatically translate into higher productivity and greater profits.

Ultimate protection

Coca Cola Enterprises (CCE) used Rescue and Recovery® to restore about 200 to 300 PCs. The systems were restored within 20 minutes, while previous methods took 3 to 4 hours. At a rate of USD 30 per hour for on-site support, the time savings associated with Rescue and Recovery® would translate to a cost saving of USD 19,000 to USD 28,500.

Technology Business Research¹, Sept. 2007



THERE'S MORE THINKING IN ThinkVantage Technologies



THINKVANTAGE SYSTEM UPDATE

Finding the latest updates and drivers and getting them to your employees is difficult to manage and requires extensive I.T. support.

Keeps it simple. Makes it quick.

ThinkVantage System Update (TVSU) software tools simplify and automate the process of finding and delivering Lenovo updates, including applications, device drivers, BIOS flashes and software updates.

Your I.T. department can use the Update Retriever utility to create an intelligent, managed repository for all Lenovo drivers and applications. The System Update client can then deliver

the correct drivers and other available updates to a specific system from this local repository. Also, no client agent needs to be installed to deliver this data when you use Thin Installer—simplifying integration with management consoles.

Thus, by using ThinkVantage System Update with Update Retriever and Thin Installer utilities, your organisation cuts down on time consuming manual searches to find the most current drivers and updates. And benefits from maximum system performance with minimum security risks.



THINKVANTAGE IMAGEULTRA™ BUILDER

In today's complex computing environment, deploying, managing and supporting multiple software images on many PCs consumes both time and resources. Lenovo's imaging technology is designed to simplify the creation and distribution of corporate images and bring image technology maintenance down to virtually zero.

Saves you money.

ImageUltra™, a fee-based ThinkVantage Technology can help enterprises save time and money and stay productive by allowing I.T. departments to deploy fewer images—often only one—across their enterprise.

According to a Technology Business Research study, ImageUltra™ can deliver deployment savings in excess of 50% while significantly reducing deployment time. These huge savings come from the reduction in expenses related to testing image compatibility, along with the elimination of high costs involved in rebuilding numerous images from scratch. Deployment of

fewer images simplifies the process and makes it more efficient. In addition, it also adds speed and efficiency to your network and business.

"ThinkVantage tools generate hard dollar savings through every stage of the PC lifecycle."

- **Technology Business Research, Sept. 2007**

To access the TBR white paper, visit: www.lenovo.com/thinkvantage

ThinkVantage Technologies brighten the bottom line at Kichler Lighting.

Kichler has been able to bring its image building process back in-house, reducing its costs by approximately 75% using ImageUltra™ Builder. Kichler anticipates further time savings throughout the lifecycle.

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THINKVANTAGE LANDESK® MANAGEMENT SUITE

Your I.T. department needs to have simple management of all PC functions including “mission-control” for ThinkVantage Technologies. Decentralised tools and tasks make the management of PCs inefficient and extremely expensive.

To help deal with this, Lenovo has designed a free Lenovo ThinkManagement Console for inventory, discovery and tracking as well as Intel® vPro™ provisioning on Lenovo PCs. Alternately, you can leverage the power of the full, fee-based ThinkVantage LANDesk® management suite for a broad and powerful console solution.

Automate updates. Minimise expenses.

The LANDesk® Management Suite for ThinkVantage Technologies allows you to automate system management tasks and also control, update and protect desktop servers and mobile devices. With the LANDesk® Management Suite you can enhance your capabilities for asset management, software distribution, system migration and image deployment. It also helps your I.T. department by deploying and managing ThinkVantage Technologies across your entire enterprise.



THERE'S MORE THINKING IN ThinkVantage Technologies

THINKVANTAGE TECHNOLOGIES. AT A GLANCE.

Highly manageable tools designed for **COST SAVINGS**, productivity and security.

Deploy	Connect	Protect	Support	Dispose
<p>IMAGE CREATION IMAGEULTRA™ BUILDER</p>	<p>HASSLE-FREE CONNECTION ACCESS CONNECTIONS™</p>	<p>SECURE CLIENT DATA CLIENT SECURITY SOLUTION™</p>	<p>END-USER SELF HELP PRODUCTIVITY CENTER</p>	<p>DATA DESTRUCTION SECURE DATA DISPOSAL™</p>
<p>CLIENT MIGRATION SYSTEM MIGRATION ASSISTANT™</p>		<p>FINGERPRINT READER</p>	<p>UTILITIES POWER MANAGER™</p>	<p>STRATEGIC PARTNERS LANDESK® SERDEN ABSOLUTE SOPHOS</p>
		<p>BACKUP AND RECOVERY RESCUE AND RECOVERY®</p>	<p>PRESENTATION DIRECTOR</p>	
		<p>SYSTEM UPDATE</p>		
		<p>HARD DISK DRIVE DAMAGE ACTIVE PROTECTION SYSTEM™</p>		

For more information, please visit:

www.lenovo.com/thinkvantage (ThinkVantage Technologies from Lenovo), www.lenovo.com/save (Save with Lenovo)

www.lenovo.com/securitysolutions (Lenovo Client Security Solution), www.lenovo.com/tvsu (Lenovo ThinkVantage System Update)

www.lenovo.com/solutions (Solutions and Technologies Guides)

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Footnotes: 1 According to 2007 TBR Whitepaper on Lenovo ThinkVantage Technologies. For more information visit www.lenovo.com/save. 2 Standard industry costs. 3 Savings based on Lenovo testing with a ThinkCentre M58 SFF and L2240p display using Lenovo Power Manager comparing Maximum Savings vs. Maximum Performance settings. While in maximum performance state, three iteration runs of SysMark 2007 were started and completed. The system ran in this state for 24 hours. While in Maximum Power Savings, three iteration runs of SysMark 2007 were started and completed. The system ran in Maximum Power Savings Mode for 8 hours and was in sleep/standby mode for 16 hours. Actual performance will vary based on configuration, usage and manufacturing variability. **Availability:** All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors. Products featured in this brochure may offer only a part of the stated savings. **Pricing:** Does not include tax, shipping and handling or any recycling fees and is subject to change without notice. Reseller prices may vary. **Warranty:** For a copy of applicable product warranties call 1-800-565-3344. Lenovo makes no representation or warranty regarding third-party products or services. **Shipping and Handling charges:** Free shipping refers to standard ground shipping. **Trademarks:** The following are trademarks or registered trademarks of Lenovo: Lenovo, the Lenovo logo, ThinkPad, ThinkVantage, ThinkCentre, Power Manager, Active Protection System, System Migration Assistant, Access Connections, Secure Data Disposal, ImageUltra and Rescue and Recovery. Microsoft, Windows and Windows Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Centrino, Centrino Inside, Intel Core and Core Inside are trademarks of Intel Corporation in the U.S. and other countries. Other company, product and service names may be trademarks or service marks of other companies. ©2011 Lenovo. All rights reserved.