

Business Benefits of Managing a Windows Environment

Introduction

IT plays an important and integral role in today's business processes and is set to become even more strategic as enterprises move towards e-business and start formulating a service management strategy. E-businesses significantly expands the scope of IT operations to support expansion of the enterprise, including the employees, customers, suppliers, business partners and remote workers.

With greater complexity and more heterogeneous IT environments and the increasing pressure to improve business performance given the current economic pressure, plus increased competition, flat growth and shrinking budgets have all forced the IT and business executives to search for means to achieve fast and maximum return on their technology investment and assets. This in turn has put the "spot-light" on the need for successful systems management and to better align IT executions with the business objectives and processes as well as to tie IT metrics (availability, bandwidth, storage, security) with business goals (costs, revenue, profit, globalisation, channels). Today, enterprises are starting to optimise existing IT investments and are putting greater emphasis on achieving real return on investments (ROI) through tighter business process integration.

As enterprises start addressing the needs to get more from their homogenous Windows environment or even increasingly their heterogeneous environments, the case for having management in Windows and its elements grows, as highlighted in our previous paper. In this second paper, we intend to expand on the business benefits of Windows Management outlined in the earlier paper and take a closer look at the business issues involved. We will expand more detail on a number of business benefits as well as the restraints and pain factors to a business if they don't have management software in place. We will also outline returns of business benefits already

seen by companies currently implementing Windows Management.

Level 4	Business Management	Business services
		Business impact analysis
		Capacity planning
Level 3	Service Management	Base lining
		Historical analysis
		Service Level Agreements
		Interface to provisioning and billing
Level 2	Operations Management	Administration
		Inventory
		Fault Management
		Monitoring
		Troubleshooting
Level 1	Element Management	Root cause analysis
		Installation, configuration and maintenance of individual IT components.

Source: TekPlus

Today's business needs require highly complex networks of different systems and applications working with supreme interoperability to provide best possible services to all users. It is expected to support the business needs – always on, always available and always efficient and it is of utmost importance to manage and maintain such systems as any downtime or other problems directly results in loss of revenues, business opportunities and even customer care. This is especially true in the case of Windows environments as they move higher up into mission critical environments and in future incorporate web services. The importance of systems management becomes more transparent from research we have undertaken which shows that over 70 percent of IT budgets are used just to keep the current IT systems running. Given this factor, more and more companies are spending time on introducing Management systems and successful trying to manage complex environments. As they undertake this endeavour they are gradually transforming the process of systems management from managing IT executions to managing the business processes. (See Table 1). This is important as business objectives have to be broken into processes and aligned with IT so that targets can be set and Service Level Agreements put in place to obtain the desired business goals. This is especially the case as the industry moves

towards web services, remote procedure calls and component based development (CBD) frameworks, which are inherently more loosely integrated.

With the evolution of web services and CBD frameworks, management becomes more important as the resources being accessed are not under direct management of the enterprise. Component based frameworks like Microsoft.NET are primarily designed for building loosely coupled applications. System and performance management is more critical for this type of deployment and development as management of these loosely coupled applications is difficult compared to the current hard-coded, tightly coupled applications. Similar needs for strong management solution become vital with XML web services and remote procedure calls where the application in question spans network or organisational boundaries.

Moving in the direction of service-centric computing from technology-centric computing is occurring along with business virtualisation, component-based development (CBD) and web services. The service-centric computing makes better utilisation of existing resources, reduces total cost of ownership, increases flexibility in the use of resources to meet changing business needs and achieves better levels of availability and scalability in the IT infrastructure. This is especially true if organisations adopt formal service management policies such as ITIL and realise they now have to think of managing services in a holistic end-to-end manner. Below we outline the cost to businesses that are not implementing management of their windows environments and have not considered the business agility it provides.

The Cost of not having Management

Windows Management solutions enable management of an ever-increasing variety of assets (fixed and mobile), application updates and software changes within a computing environment that feature multiple hardware, software and networks. The ability to manage these assets successfully through out their life cycle – from implementation to service delivery to update to ultimate removal – has a visible impact on their total cost of ownership and the organisation's bottom line. By not having management systems in place, the enterprise suffers costs and application

performance impacts that are countable worse. If you don't have management tools for a multipurpose system like Windows, each individual system needs separate administration and management, which in turn increases associated costs and time spent. Few of the pain factors that a business suffers in the absence of Windows Management are highlighted below;

Downtime

Every time a system crashes, its unavailability impacts the business processes badly. It impacts business performance by making system unavailable (partial or full) to business and sales executives; as a result they are unable to meet customer's need. This not only results in lost revenues and customer dissatisfaction but also yields poor business performance and loss of reputation. The business losses due to system unavailability varies according to the industries and type of applications; however for businesses engaged in large scale financial transaction and those that are actively engaged in e-commerce bear revenue losses of several million dollars when critical systems become unavailable. Thus failures can costs significant dollars for every hour of downtime. Currently around 90 percent of the system downtime is as a result of 'planned downtime', which accounts mainly for system maintenance and back up. The system downtime significantly increases when system maintenance and back up are not automated because then each IT component is needed to be maintained individually.

Downtime associated with maintaining each individual application on each IT components also shows considerable financial and operational impacts on the business processes. It heavily affects the 24 x 7 availability of the business. Downtime can occur when either the system or network or application or even the operating system goes down and becomes unavailable. TekPlus estimates over 55 percent of the downtime is created by the software application and operating systems failure. Even if we assume just 2hours of planned downtime for manual maintenance a day, assuming a 24/7 business facility, this adds up to a significant waste of IT staff's time as well as productivity from end users. On average, the lack of a management solution reduces software availability by nearly 60 percent and hardware availability by nearly 20 percent.

System performance

Problem of even one component in a system affects the system performance as a whole. In the absence of systems management tools, the system takes longer to execute the operation that subsequently affects the business. It also affects the agility of the business by not providing real time access to needed applications. On the other hand management tools helps quickly identify the problems with built in intelligence and correct them at component level so that it doesn't affect the overall system performance. It also allows the system to respond automatically in failure conditions (e.g. data recovery). In absence of system management program, IT system fails to work at its optimum. In addition these tools allow the IT staff to optimise performance and allocate resources in terms of priority to the fundamental needs of the business during the day. As delays in critical business decisions frequently cost money, the performance of the overall system and critical applications are vital.

Need for increased Workforce

The use of sophisticated applications with policies and event triggers in the business has helped enterprises to oversee some of the components of their business network. Though it ultimately requires the need for highly skilled IT workforce to maintain and repair the wide variety of complex applications and systems. Organisations not having an automated Windows Management solution in place require an even greater increase in the number of IT maintenance staff, which in turn increases the organisation's annual spend on salaries and benefits. This therefore has a direct impact on the businesses revenue. The number of increased staff varies according to the size of the organisation. There are significant savings to be made by utilising a windows management solution and freeing up the time of IT staff to concentrate on more productive work.

Business continuity

Business continuity is generally regarded to be affected by a true disaster. However in most cases its simple human error, which does more harm to a business with its unexpected and intrusive nature. This negative impact on business continuity directly results in lost revenues and customer dissatisfaction. In the absence of a Windows Management solution, a single notorious event leads to partial or may be complete shut down of

the system for a period of time. In addition the recovery work engrosses multiple support staff where only one or two might be necessary. Where as with a Windows Management solution in place saves not only the hassles but allows IT support staff to identify the cause of the event and respond proactively to the disruptions. With the disaster recovery element, Windows Management enables systems to recover from disruptions more rapidly at a lower cost and with greater efficiency.

The benefits of Windows management in business terms

Methodology

While justifying the business benefits of Windows Management, the key business metrics we have concentrated on are;

- Increasing corporate revenue
- Driving down costs
- Increasing profitability
- Increasing productivity
- Increasing efficiency
- Increasing availability

The TekPlus process of measuring the business benefits of Windows Management solutions has involved understanding the Business-to-IT relationships, measuring user performance from an application prospective, developing key performance indicators to determine the quality of user experience, determining the cost of administering the organisation's networks, systems and applications, measuring the gains in productivity, availability and efficiency, justifying the initial investments, calculating returns by understanding the impact of a Windows Management solution on the business process whilst mapping alignment of IT infrastructure and services in terms of business benefits. Below we have outlined the business benefits achieved and provided initial returns seen by fifteen companies we have studied in terms of the end to end business savings seen by service management as oppose to element savings outlined in our earlier paper. Our highlighted examples below have focused both on homogenous as well as heterogeneous environments consisting of a windows management solution.

Results

IT architecture has a major impact on competency and migration of an organisation due to its strong bonds with the business processes and change management. The management of an Enterprise's operations architecture enables and stabilises the business transformation. Table 2 illustrates the benefits of Windows Management at three sections in an organisation.

Table 2	
Clients	Effective troubleshooting
	Mobile Clients Management
	Interoperability
	Integration of security and asset management
	Disaster recovery
	Anti-virus environment management
Infrastructure	Integration of applications
	Operations management
	Security management
	Advanced asset management
Solutions	Improved manageability of the Windows platform operational excellence in services, security and software distribution

Source: TekPlus

days a year, their ability to better service customers as well as to retain them becomes crucial. The effect to businesses due to downtime when systems go down means that they are losing revenue per hour, minimising downtime by whatever means is thus important for the bottom line. Uptime enables the organisation to respond to customers better and results in higher satisfaction rate and increased reputation. This in turn attracts more customers and suppliers, increasing overall revenue. Savings of the rate of millions of dollars per hour have been seen in some of the case studies studied.

CASE 1: A securities trading market in Europe requires mission critical IT Services. Their demands were very much focused on real time information provision, stable and highly available computing systems. After implementing a Management solution the company says it has not had any downtime and its main benefits are significant savings and peace of mind as even an hour of downtime used to cost them millions of dollars in trading.

Additional benefits reported were;

- Control over the whole system from a single console.
- 20% reduction in operational costs.
- Controllable IT operations.
- Better utilisation of workforce skills in more strategic tasks.
- People have been freed to use their knowledge to grow the business.
- Better IT department performance level.
- Respectable reputation among customers.

Quantifiable Business measures

Increased revenue

BUSINESS GOAL: Increased Revenue
BENEFIT: Improve company's ability to respond to customers problems; it reduces the risk of losing immediate business
SAVINGS: 30-50% savings range seen due to improved downtime, which otherwise would have resulted in lost revenues.

Windows Management helps to increase revenue in an organisation by reducing downtime and thus increasing availability to the most important parts of the business. As more and more businesses focus on operating round the clock and thus provide a service of 24 hours, 7 days a week, 365

End user productivity

BUSINESS GOAL: Improved End user Productivity
BENEFIT: Effective Windows Management enables more productivity from end-users due to increased availability of resources
SAVINGS: 9-25% savings range seen due to improved end user productivity.
 Some examples of the issues to consider are;

- Savings in user downtime from malfunctioning desktops/application installs, updates and rebuilds (30 - 40%)
- Savings in time waiting for help desk support (35 - 50%)
- Savings created by the increase in revenue per employee per month from reduced downtime



Downtime impacts on the productivity of the end-user and also creates low moral. This generally has a bearing directly or indirectly on user productivity. Maintaining a satisfied user base requires an end-to-end monitoring of performance and end user experience. This generally means measuring response times on application transactions on the users desktop to concur with agreed service levels. Windows Management enables this end-to-end monitoring and significantly reduces the downtime, thus improving end user productivity. As part of the service, the ideal situation is to provide location independent desktops customised for each user when they log on from any location.

Case 2: A conglomerate with 1,000 sites worldwide-utilised 1,500 servers and 25,000 desktops. With implementation of Windows Management solution, they have automated distribution of user administration data and have seen the main benefit as enabling users to access mission critical databases whenever they need without any problems.

Additional benefits reported were;

- Reduced the number of people engaged in administering users by 60%

Improved productivity

BUSINESS GOAL: Improved Productivity

BENEFIT: With Windows Management less time is required to execute various operational functions; it leads to reduced workforce requirement to do routine operations. It leads to improved return on hardware and software resources

SAVINGS: 25-35% savings range seen due to improved productivity of IT support staff.

Some examples of the issues to consider are;

- Savings in reduction in time to set up and configure desktops
- Savings in reduction in time to install and upgrade software
- Savings in time to repair and rebuild per desktop
- Savings in server set up and troubleshooting time
- Savings in reduction in time to install and upgrade server
- Savings in reduction in time to tackle remote server problems

Windows Management solution helps to improve employee productivity by providing them the best tools for their jobs. (e.g. automatic upgrades of mission critical software). It provides them application reliability and secure connections to IT resources whenever and wherever they are needed. With improved productivity, employees can perform routine business processes such as set up, configuration, upgrades, troubleshooting, repair and administration tasks with fewer people. Around 35 percent increase in productivity is seen among IT staff responsible for server and desktop management and enterprises can save costs in day-to-day operations, improve return on their technology resources and increase their competitiveness. Improved employee productivity also enables IT staff to focus on value-added tasks. While calculating costs savings here, the costs that most mattered are; cost of software/hardware installation, cost of user support, cost of system operation and administration, cost of managing system and network, and cost of system back-up. Support and administration costs represent nearly 60% of the total IT costs, making it clear that savings on these tasks accounts for huge cost savings. It also improves the company's 'time-to-market' with rapid and reliable deployment of e-business applications and services. 70 percent on average improvement in time-to-market capabilities of an organisation has been observed with management solution. It does so by rapid deployment of software and content across the extended enterprise in hours or days instead of weeks or months.

Case 3: A leading manufacturer in Europe deployed a Windows management solution to manage and monitor its Windows NT and Windows 2000 infrastructure. The main benefits were to increase system availability and performance and to improved productivity by freeing its IT staff members to do their jobs more proactively.

Additional benefits reported were;

- Increased uptime of business-critical applications.
- Improved and expanded reporting that gives IT a better understanding of business performance.
- Minimization of downtime due to automatic identification and resolution of performance

Case 4: A Government department in Europe with 4,000 employees and accessing public had an IT environment which included Windows based workstations – 98, 2000 & NT and thin clients in multi-platform environments. They deployed a management solution and the main benefit now is 5 IT staff (down from 10) manages its entire network with considerable savings in time and resources.

Additional benefits reported were;

- Greater flexibility in accessing applications and data on various operating systems
- Centralised control over distribution and configuration of resources

Enhanced efficiency

BUSINESS GOAL: Enhanced Efficiency

BENEFIT: Reduced time and travel required in managing and supporting remote users. Additional management staff not required to deliver the same level of support as the company grows

SAVINGS: 8-15% savings range seen due to increased management efficiency

Windows Management helps maximise employee's efficiency by providing better staff utilisation. It helps IT management staff to support more systems, networks and appliances without extra manpower. It also supports remote sites from the central location enabling an organisation to manage their remote operations without requiring additional staff or travel. Ultimately it results in saving on costs, travel expenses, salary and overheads of additional staff. Efficiency in terms of scale and scope allows a business to grow very fast and respond to a changing business environment.

Case 5: A Global IT Services company wanted to manage 500 central and remote desktops from its headquarters. They deployed a windows Management solution and found their main benefit was savings on 3 staff members' travel, by utilising remote management.

Additional benefits reported were;

- Deployed another 500 desktops without hiring new staff
- Managing twice the amount of desktops remotely with just 1 more staff.
- Savings of \$200,000 in costs
- End user satisfaction rate increased fivefold
- Software deployment now in days and not months
- \$1.5 million savings in IT budget for a year
- Help desk calls have fallen dramatically

CASE 6: A prominent European bank with an IT infrastructure which includes 240 Microsoft® Windows NT® servers and 3,000 PCs distributed across five sites had problems with their manual operational activities. Tasks like manual software distribution and checking error logs took a lot of the staff's time and thus their abilities were not directed on business developmental activities. After implementing a solution for Windows Management they resolved their problems, freed up staff and had the main business benefits in annual saving of £150,000 with no additional staff.

Better optimisation of resources and flexible utilisation

BUSINESS GOAL: Better optimisation of resources and flexible utilisation

BENEFIT: Optimisation of homogeneous as well as heterogeneous systems, platforms and applications to yield better performance

SAVINGS: 80-150% savings range seen due to flexibility in asset utilisation

Windows Management solutions are designed to optimise the IT resources. They maximise the capabilities of existing technologies as well as future additions, to support changing business models. Windows Management enables re-configuration and ongoing management of applications and assets by providing automated end-to-end lifecycle management of the enterprise. It enables IT staff to optimize their resources and capabilities and leverage by focusing their asset utilization on their most urgent priorities. As and when the priorities change, the flexibility provided can be used to adapt the business to its changing environment in line with its business processes. This in turn saves expenses, as you don't have to discard expensive systems and software but can adapt them with future needs.

Case 7: A European Insurance company has an IT environment, which includes Windows NT based applications, 400 NT servers and 20 UNIX system servers. After deploying a Management solution, they have streamlined the enterprise system and its complex e-commerce transactions, which are regarded as main process benefits whilst they move to a service based framework.

Additional benefits reported were;

- Higher systems availability
- Improved staff productivity
- Better resource allocation

Better IT alignment and sourcing strategy

BUSINESS GOAL: Better IT alignment and sourcing strategy

BENEFIT: Connecting IT executions to business processes to meet 'computing on demand' and strategic outsourcing demands

SAVINGS: 150-250% savings range seen due to Business process alignment

Business and IT executives are growingly viewing IT as a service to business and are starting to implement formal service management frameworks such as ITIL. ITIL is generally described as an integrated, process based framework for managing IT services and describes which best practices need to be realized within the organization for management and operation of the infrastructure to promote optimal service provisioning. This can only be realized in conjunction with an enterprise management solution which can define, manage and measure the parameters to help enterprises realign fundamental metrics and identify, plan, implement, and measure business initiatives. This results in providing high quality services to the users whilst determining and provisioning for capacity management and business continuity, utilising historical trends to predict future service levels. When both the infrastructure management and service management processes are strategically utilised for sourcing priorities, the returns are enormous. This is especially true when a mixture of sourcing strategies are utilised, including on-demand computing and selective outsourcing.

Case 8: A European bank providing commercial and investment banking with 100 branches in Europe deployed a Management Solution in accordance with the alignment of IT management processes & ITIL best practices thus making its IT department into a service organisation. It also undertook selective outsourcing of its network management. The main benefit it has realised is the improvement in the time-to-market of new products and the improved productivity of users.

Additional benefits reported were;

- Significant improvement in end user service.
- Significant reduction in business downtime.
- Transparent, measurable and predictable IT services.
- Staff freed for more strategic work
- Bank can better respond to market changes

Overall Returns

As can be seen from the above discussion, the returns in business terms are quite significant individually but become even more impressive when all the benefits are taken together. It is quite meaningless in our view to calculate any sort of Total Return on Investment for our case studies, as they provide a wide range of returns depending on the vertical area, the size of the organisation as well as their present state of execution down the service management roadmap. The important point is that most of them have seen most of their investment in windows management solution returned very fast (70 to 120 days) and have also seen significant agility in their business to respond to the challenging conditions they currently face in the present difficult economy. One point that clearly came out was that organisations got substantial economic value on their investment when they incorporated best practices with the technology and gains jumped six fold when IT was aligned with business processes.

Our findings indicate that Windows Management provides rapid returns both in terms of productivity as well as availability and enables high quality services to the business users, thus increasing the total return on an organisations IT investments.

Conclusion

Windows Management helps you integrate employees, customers, suppliers and your business partners across your business ecosystem in real time. It is scalable and fulfils your ever-arising e-business needs as you grow.

Windows Management provides greater reliability and manageability, which leads to faster migrations, increased service levels and reduced cost of ownership. The availability provided by managing a Windows environment improves employee productivity, cuts help desk costs and enables IT staff to focus on value-added tasks. Windows Management enables businesses to deliver higher performance, greater responsiveness and improved security at lower costs whilst managing a growing infrastructure with less new staff.

The most visible business benefits of Windows Management are agility, stability and an improved Return on IT. This enables an organisation to –

- ☞ Maximise the quality and performance of its processes.
- ☞ Improve availability of its processes.
- ☞ Reduce cost of operations across the corporate ecosystem.
- ☞ Ensure alignment of people, processes and IT to business goals and achievements.

Successful Windows Management leads to tremendous business service enhancements. Windows Management can potentially offer a secure and connected infrastructure with tools to empower knowledge workers and to further enable a rapid application development environment. These elements will become critical to IT managers of the growing enterprises, as web services begin to take hold.

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