

WHITE PAPER

Addressing Operational Efficiencies in Branch Offices

Sponsored by: Microsoft

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EXECUTIVE SUMMARY

IT management in organizations that operate branch offices must accommodate the often-conflicting needs of the branch offices and headquarters. Branch locations — especially those located in different geographies — often are looking for high levels of flexibility and autonomy in implementing IT solutions, which may cause them to work outside of corporate IT policies. However, expanding corporate requirements calls for centralized management, enhanced security, and regulatory compliance. For many businesses, the trade-offs that must be made between these two conflicting requirements lead to significant operational costs.

Windows Server operating systems products have long been a cornerstone of branch office IT operations, dating back to the launch of Windows NT Server 4.0 in 1996, and subsequently expanded with the release of Windows 2000 Server and Windows Server 2003. The launch of Windows Server 2003 R2 took an already popular product and refined it with features specific for deployment at branch offices that fall under a corporate IT umbrella. When combined with products such as ISA Server, these improvements include HTTP compression, content caching, and incremental replication capabilities designed to reduce WAN bandwidth requirements.

IDC's study of 10 customers that implemented prerelease copies of Windows Server 2003 R2 found strong returns on the investment to move from Windows 2000 to Windows Server 2003 R2. For the Windows Server 2003 R2 customers surveyed, the anticipated total benefits averaged \$84,059 per branch office per year. IDC accounts for the opportunity costs realized by not having invested the initial amount in some other instrument yielding a 12% return. This results in a net present value for the three-year savings of \$147,790 per branch office. Based on these numbers, the payback period from deploying the Windows Server 2003 R2 averaged 5.1 months for the companies surveyed, yielding an average return on investment of 274%.

IDC believes that Microsoft is showing its ability to focus on the day-to-day, operational business requirements for this key customer set in branch locations — even as it continues to enhance ease-of-use features that help branch end users to maintain business processes with limited IT resources available at their sites. The end result is Windows Server 2003 R2 has the strong potential to lower operational costs among branch office users.

INTRODUCTION

IDC research indicates that there are over 2.2 million companies with branch offices in the United States and that these companies support over 6 million branch offices with more than 30 million workers. On a worldwide basis, the numbers are significantly greater: roughly 9.5 million companies have branch offices, and these branches total over 23 million in number with over 50 million workers. Support for the knowledge workers in locations beyond headquarters is a major challenge for corporate IT departments. While the businesses vary greatly in their daily operations — ranging from bank branches to retail stores to car dealerships — some of the fundamental aspects of their IT requirements remain the same, such as the need to share data and documents, to update headquarters offices with field data, and the need to support the local branch with a minimum of IT staff.

The Changing Role of IT and Support in Remote Business Environments

Almost all large firms (1,000+ employees) have multiple locations, as do six out of seven medium-sized firms (100–999 employees). Small businesses (less than 100 employees) vary widely when it comes to having multiple locations. While understandably rare in firms with less than five employees, over 70% of firms with 50–99 employees have multiple sites. Table 1 summarizes this distribution of branch offices in the United States.

TABLE 1

U.S. Branch Office Profile by Company Size, January 2006

	Total	Total SBs (<100 employees)	Total MBs (100–999 employees)	Total LBs (1000+ employees)
Total companies	8,197,600	8,081,000	107,600	9,000
Share with branches	27.0%	26.2%	84.2%	96.7%
Companies with branches	2,217,260	2,118,000	90,560	8,700
Average number of branches	2.7	2.2	8.7	65.2
Total branches	6,041,686	4,686,200	787,872	567,614

Source IDC, 2006

Limited IT Resources at Branch Offices

IDC has found that technology environments vary considerably among the 6 million branch offices accounted for in Table 1. Almost half (44.7%) of these branch offices are associated with more technologically advanced companies that have server-based local area networks (LANs). Not all branch offices have their own LANs, especially if an office has only one or two people. Larger branches, with 20 or more employees, are more likely to have LANs installed onsite and are also most likely to have full-time IT staff in place, although firms can vary in the availability of IT support resources. In effect, the branch office of a large company can have an IT environment that resembles that of a small company.

Need to Replicate Data Securely

But even if more IT resources were available in the local site, branch offices would still face the issues of how best to replicate and/or safely exchange data with the central office. Corporate headquarters is where the resources are, of course, but the real driver for improving data protection is the changing environment surrounding security. Regulatory compliance has sharpened awareness of the need for effective data protection and disaster recovery, and beyond that, the business interruption caused by Hurricane Katrina made it clear that even without government mandates, effective backup and storage procedures are essential to insure business continuation in face of unexpected natural or man-made disasters.

Management

The distribution of information and IT resources outside the corporate datacenter, along with the need to support remote locations, means that the role of IT management and support is being transformed. No longer is it sufficient for IT to be a caretaker of resources and a gatekeeper for security in a central-site location. IT must also be a facilitator of technology deployments that are located far away from the datacenter.

On the Front Lines of Business

The dilemma faced by IT managers and administrators responsible for branch offices is clearly stated: Their business colleagues in the branch offices are on the "front line" of their business, closest to the customer, and they are often responsible for significant revenue generation. In some cases, larger branch offices may have limited IT staff located onsite, but the cost considerations make this an increasingly less-likely scenario.

More typically, branch office-located employees have little or no local IT skills at their site and need remote technical assistance to add, update, or repair computer resources; access key operational data; and resolve system outages. Historically, this challenge has forced branches to rely heavily on central-site IT organizations to get the IT jobs done.

In some cases, branches may look to VARs and system integrators (SIs) to add to their local support system. These service companies help to install equipment, deploy new applications, or maintain existing applications on behalf of branch end users.

However, hiring additional help from third-party companies adds cost to the local branch office's budget.

Long term, the better solution is to deploy technologies that reduce the need to hire local IT resources or independent contractors. Such an approach is likely to have a positive impact on long-term reduction of operational costs.

The Changing Role of IT

There have been recent changes, as well, that can be harnessed to improve the IT resources available to branch offices. Network bandwidth connecting the branches to the headquarters sites has improved greatly, as high-speed links were put into place and telecommunications costs have declined, with an associated impact to the bottom line. That means that access to headquarters has improved, and this allows branch offices to leverage central-site assets, such as customer databases, centralized inventory information, and IT help-desk capabilities more easily. These infrastructure improvements also make it possible for the central IT department to support and manage branch office–located equipment.

But at the same time, the local branch also must be able to help itself when it comes to file/print, local databases, and support for local branch information, such as store systems, point-of-sale (POS) systems, RF systems for identification and inventory of goods on hand, and local logistics information, including information about local business partners or local promotional events. Latency issues still can impact some WAN applications, and disruptions to WAN services, especially to branch offices in remote or foreign country locations, mandate that a branch office have the ability to continue working through service slowdowns or disruptions.

Key Drivers of Cost

The key drivers for cost in branch offices include:

- ☒ **IT staffing (including outsourcing/consulting).** When available, IT staff in branch offices are often involved with repetitive tasks, such as applying software updates and security patches and backing up and archiving data. However, the larger trend of IT consolidation suggests that locally positioned IT staff is a luxury that in the future will be reserved for only the largest and most critical branch offices.

- ☒ **Manageability.** Barriers to manageability drive costs higher because they require more hands-on system administration, increasing IT staff time. However, increasing automation and enhanced management tools reduce that IT staff time, avoiding costs associated with manual management processes. In particular, the use of system management tools to apply patches and update software components and to distribute operational and functional policies to individual machines can have a dramatic effect on lowering operational costs. The ability to automate low-level tasks — and to move to higher-level, value-added tasks— improves IT productivity.

- ☒ **Downtime.** Improved management can reduce system downtime, or it can limit downtime to a given component within a network (e.g., one server node or one subnet segment in the network). As system downtime is reduced, costs associated with downtime are avoided, as well. Alternatively, a network of server systems can fail over workloads from one server node to another — allowing applications to resume within a short period of time. Business continues as usual, and revenues are not affected by outage within isolated components.

- ☒ **WAN costs.** Despite the decrease in WAN acquisition costs, the bandwidth consumption of WAN resources continues to grow due to ever-larger volumes of data transfer, email traffic, along with the growth in the size and volume of email attachment sizes. WAN costs, if managed carefully, can place a ceiling on the growing costs of supporting branch offices.

KEY ENHANCEMENTS IN WINDOWS SERVER 2003 R2 AND ISA 2004 SP2

To meet the unique requirements of branch offices, including the need for efficient use of WAN bandwidth, the ability to reduce management overhead and to empower branch office employees to be productive locally when appropriate, Microsoft has provided some key enhancements to Windows Server 2003. Microsoft announced the R2 version of Microsoft Windows Server 2003 in December 2005 as a follow-on product to the successful Windows Server 2003 product.

Most of the improvements incorporated in Windows Server 2003 R2 are aimed particularly at branch office customers, although some of the enhancements also provide incremental value to other target deployment scenarios. Windows Server 2003 R2 specifically enhances file replication and file/print capabilities, improved WAN compression and selective replication capabilities, as well as identity management, storage virtualization, and Unix interoperability — all of which impact operations at branch sites.

With respect to enhancements targeted to branch offices, the highlights of the announcement include the following:

- ☒ **Remote differential compression (RDC).** Microsoft has included a data-compression algorithm in Windows Server 2003 R2 that optimizes the shipment of data over WANs. With the aim of reducing transmission time, this feature has the potential to allow branch offices to offload backup and archiving activities to a central office, freeing up time to focus on other tasks beyond backup and replication. RDC manages the backup operation through replication only of changes that have taken place on local or remote copies, keeping the two file systems in synchronization. Reducing the volume of data transfer helps optimize WAN consumption, saving connectivity and bandwidth costs.

- ☒ **Enhanced print services.** Windows Server 2003 R2 has enhanced print services that support centralized printer control, or management, of multiple printers. This product provides a Print Management Console (PMC) that allows centrally located administrators to monitor printer errors, assign printer

connections to client desktops, and to discover — and install — printers on the local branch office network that can then be accessed by branch office end users. The print management console contributes to automation of printer-associated IT tasks, and so it has the potential to reduce IT staff time associated with those repetitive tasks and, for some customers, to remove that activity entirely from the branch office.

- ☒ **Microsoft Management Console improvements.** The inclusion of an expanded version of the Microsoft Management Console (MMC) enhances the ability of centrally located administrators to manage print and file services for branch offices.

- ☒ **Enhanced Distributed File System (DFS).** Microsoft upgraded its DFS capabilities in Windows Server 2003 R2 to improve replication and file accessibility for remote and branch office users. Through the use of DFS replication, which incorporates the remote differential compression technology, file replication can be accomplished with a reduction in bandwidth consumption. Further, an upgraded technology called DFS Namespaces enables centralized administrators to share folders with branch office users through a "virtual tree" of folders in a DFS namespace. This makes it possible for branch office users to access data from networked servers without having to identify which physical server holds the data. This enhanced availability improves worker productivity, which is a business benefit.

Other Key Features of Windows Server 2003 R2

Windows Server 2003 R2 includes other features that may not all be directly applicable to branch offices, including the following:

- ☒ **Identity federation, allowing customers to link Active Directory to business partners' directories running outside the corporate firewall.** With the advent of Web-enabled business software, identity management has become a top priority in branch offices. The ability to link identity management to a centrally managed directory service, such as Microsoft Active Directory, improves data security — and enforces business policies about access to information, including the use of "roles" that is based on the end-users job title or job description. Identity federation enhances security, which is a business benefit that helps ensure that applications are being accessed by authorized end users.

- ☒ **Single sign-on through integrated identity management.** Branch offices need to support corporate security procedures, which are put into place at central headquarters, but need to be maintained anywhere throughout the corporate network. Any local lapse in security could compromise overall security for data. Single sign-on ensures that a given user can access the network securely, no matter which server in the network is initially accessed by that end user. This also enhances security by making sure that unauthorized persons cannot access corporate data, even if they try to log on to more than one server in the network.

- ☒ **Improved Unix interoperability.** This improved interoperability with Unix servers allows Windows servers to exchange data more easily with Unix servers on the network, or at corporate headquarters. This supports branch capabilities to update central-site databases, to update branch sales, and to update customer profile lists or inventory lists that are housed at central-site locations. Most large corporations have Unix servers and Windows servers in their IT infrastructure. Accordingly, the ability to interoperate more easily with Unix servers will improve IT operations and provide business benefit through support of end-to-end applications that need to access data stored on Unix servers.

Related Products that Enhance Windows Server 2003 R2

Internet Security and Acceleration (ISA) Server 2004 SP2

Microsoft products are designed to leverage other Microsoft technologies, and in the case of customers deploying Branch office servers, Microsoft has a number of related products (available at an extra cost) that add to the functional capabilities in Windows Server 2003 R2. One such product is Internet Security and Acceleration (ISA) Server 2004 SP2. This layered server product offers branch office functionality through the following key features:

- ☒ **Background Intelligent Transfer Service (BITS).** This file transfer service provides a caching and data transfer agent that moves Microsoft's Windows Update to deliver service packs, patches, and updates to branch offices. The BITS utilizes otherwise unused bandwidth to move this information down to branch office servers, but gives priority to other workloads when WAN demand is high. BITS minimizes the repeated delivery of large blocks of code over WAN links, improving the efficiency of data transfer..
- ☒ **HTTP Compression.** ISA Server 2004 SP2 compresses Web content for branch offices, reducing the redundancy of multiple downloads of content over a limited WAN link. This can conserve WAN bandwidth use and lower WAN costs. (Similar to BITS, HTTP Compression reduces bandwidth consumption that branch offices expend on routine traffic.
- ☒ **VPN tunneling.** A core feature of ISA Server 2004 is the ability to establish VPN connectivity from a branch office to a central office. This capability empowers branch office users to securely access corporate resources in an efficient and more secure manner.
- ☒ **Integrated Web caching.** ISA Server 2004, Enterprise Edition, offers the ability to cache Web content, ensuring that Web content is never stored twice. This has the benefit of expanding the amount of Web content that can be cached by a single array.

Related Products that Enhance Windows Server 2003 R2

System Center Data Protection Manager (DPM) 2006

A second product Microsoft positions for use in branch offices is System Center Data Protection Manager (DPM) 2006. Intended for use in backup and disaster recovery activities, DPM delivers centralized backup of branch offices by continuously protecting changed files to alternative disks, which can then be backed up to a storage device. In addition, DPM enables recovery from online disk storage instead of forcing the restoration from removable media. DPM offers branch office functionality through the following key features:

- ☒ **Efficient data protection.** DPM logs and replicates byte-level changes to the files from the branch file servers to the DPM server in a central location, making backups more efficient and independent of hard-scheduled backup windows. This capability benefits branch offices as it lowers the peak loading on production servers compared to using conventional file or block-based backup tools.
- ☒ **Flexible backup scheduling.** IT administrators at the datacenter can tailor the backup frequency at branch offices to match the business value of the data. DPM provides default schedules for hourly and daily backups, but IT administrators can also customize protection schedules for specific data sources. This allows branch office bandwidth to be utilized at times when historical demand is lowest.
- ☒ **Multiple backup snapshots.** Using a technology called shadow copies (also known as snapshot, point-in-time, past-time, or cache copies), DPM enables branch servers to create replicas that can be stored on the centralized server running DPM. This allows users to browse and recover deleted or corrupted files from multiple points in time and to save the data in those shadow copies to tape as part of the normal backup process. Branch office users benefit since they can recover archived files without the intervention of central IT personnel.
- ☒ **Network throttling.** DPM enables the throttling, or capping of network traffic by setting limits for maximum network utilization. These metrics control scheduled backups so that if the network is busy, the backup will not have a negative impact on network performance. This conservation of network bandwidth benefits branch offices as it allows efficient management of WAN resource consumption.

QUANTIFYING THE BUSINESS BENEFITS OF WINDOWS SERVER 2003 R2

To assess and quantify the business benefits of deploying the Microsoft Windows Server 2003 R2, IDC conducted in-depth interviews with 10 large enterprises from various industries in North America, the Asia/Pacific region, and Europe that were participating in an early deployment program to use this server operating system in some of their branch offices. IDC asked detailed questions about the implementation costs in deploying the software, and the cost savings and other benefits realized when the servers were deployed in all the branch offices. IDC then applied its proprietary ROI methodology to the projected savings to determine the average payback period and ROI that the surveyed companies would realize over the three-year period. The organizations included government agencies and enterprises in finance, transportation, real estate, high tech, engineering, construction, and the petroleum industries.

IDC's ROI Methodology

To quantify the business benefits of IT solutions, IDC has developed a return-on-investment (ROI) methodology that measures the total costs of deployment and the sum of the savings achieved. The methodology calculates the ROI in a three-step process:

1. **Ascertain the investment** made in the purchase and implementation of the solution and the associated training and maintenance costs. To get an accurate assessment of the investment in deploying Windows Server 2003 R2, IDC asked for the purchase, setup, upgrade, and maintenance costs, as well as training costs, and the loaded costs of the incremental staff required to operate the server operating system.
2. **Measure the gains** in IT staff and end-user productivity from deploying the solution, as well as the revenue recaptured from reduced downtime, and the cost savings from increased IT staff efficiency and lower capital and operating expenses. To determine the gains, IDC asked for the anticipated savings from deploying the Microsoft Windows Server 2003 R2 in the branch offices.
 - ❑ **IT productivity savings.** IT staff productivity indicates how effectively IT managers and their staff use their time. Besides reducing operations costs, gains in IT productivity can free up staff to implement new initiatives more rapidly, helping to create a competitive edge.
 - ❑ **End-user productivity** is increasingly dependent on service uptime as organizations become progressively more network-centric. When end users are unable to access network resources, their productivity may be severely impaired. End-user productivity also suffers when employees have to wait for help desk support or other IT administrative tasks. Since end-users often are able to move to other business applications when service interruptions or performance degradations occur, only a small fraction of the potential end-user impact time is counted toward the final ROI result.

- ❑ **Recaptured revenue.** Higher service availability also contributes to business' top lines because less revenue is lost due to downtime, and potential service penalties are avoided. Additionally, downtime can be costly in terms of diminished customer satisfaction and possible loss of a customer's business.
- ❑ **Cost savings.** Costs can be cut by improving IT staff efficiency, which is a measure of how well the IT management organization can achieve economies of scale and scope of work with its people, tools, and practices. To remain competitive, companies must be able to grow their systems and networks at a faster rate than the IT staff required to support them. Skilled IT professionals continue to be scarce, so companies are expecting existing staff to take on more work and responsibilities. If IT departments are unable to achieve the required economies of scale and scope, they restrain corporate managers' business decisions and discourage aggressive deployment of technology to gain a competitive advantage.

3. **Calculate the payback period and ROI for the deployed solution.** From the results of the interviews, IDC was able to project the savings over a three-year period of deploying the Microsoft Windows Server 2003 R2 in all branch offices. Based on these results, IDC was able to calculate the net present value (NPV) of the savings over the three-year period, and the average ROI and payback period.

IDC bases its calculations on a number of assumptions:

- ☒ Time values are multiplied by burdened salary (salary + 40% for benefits and overhead) to quantify efficiency and manager productivity savings.
- ☒ The impact of unplanned downtime is quantified in terms of impaired end-user productivity and lost revenues.
- ☒ Lost productivity is a product of downtime multiplied by burdened salary.
- ☒ The NPV of the three-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost.

Since not every hour of downtime equates to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings. Further, because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis, then subtracts the deployment time from the first-year savings.

SURVEY RESULTS

In its survey of early deployments, IDC asked a number of quantitative questions about management processes and the associated time and staffing requirements before and after deploying the Microsoft Windows Server 2003 R2 solution. IDC also asked about the implementation costs as well as the savings realized.

Determining the ROI and Payback Period

From the results of the interviews, IDC was able to determine the average savings that the surveyed companies had realized from implementing the Microsoft Windows Server 2003 R2 solutions in a number of branch offices based on increases in IT staff productivity, end-user productivity, and other cost savings. To determine the average ROI and payback period, IDC projected the cost savings over a three-year period and applied them to all branch offices.

IT productivity. To determine the increase in IT staff productivity from deploying the software, IDC asked questions about staff time needed for various activities related to IT operations, before and after the software's implementation.

In the companies surveyed, IT productivity rose by an average of 15.6% after deploying Windows Server 2003 R2. This would result in an average annual cost savings over a three-year period of \$7,519 per branch office.

The managers interviewed reported that they had realized substantial savings in the number of staff hours expended on a variety of management tasks, ranging from repair and restoration of files to storage management and disaster planning and recovery (see Table 2).

TABLE 2

Time Savings on IT Staff Activities from Deploying Microsoft Windows Server 2003 R2

Activity	Time Savings per Task
File repair and restoration	34%
Storage management	34%
Disaster planning and recovery	28%
Capacity planning	25%
Server setup and configuration	18%
User support/help desk	16%
File replication	14%

Source: IDC, 2006

End-user productivity. End-user productivity is impaired when employees wait for software installations, file replications and restoration, and other IT administrative support, and when system downtime prevents their access to needed applications and information. To determine the impact of Windows Server 2003 R2 on end-user productivity, IDC asked about time lost waiting for these activities, before and after deploying the Windows Server 2003 R2 server operating system, as well as the before and after amount of downtime.

End-user productivity jumped by an average of 2.1% after deploying Windows Server 2003 R2. End-users saved an average of 7.6 hours a year in the time that was taken to replicate files, and they saved a further 2.3 hours per year in the time that was taken for restoring files. Additionally, there were time savings of 5.6 hours a year in the time taken to install software. The productivity increase would contribute an average cost savings of \$568 per branch office annually over a period of three years.

In the companies surveyed, end users experienced an average reduction in downtime of 3.5 hours a year. If the Windows Server 2003 R2 were deployed in a production environment, IDC estimates that the reduction in downtime would result in an average recaptured revenue for the companies surveyed of \$72,271 per year due to avoidance of lost revenues during outages. These projected savings are not included in the calculation of ROI and payback period.

Cost savings. In the companies surveyed, the bulk of the savings came from reductions in hardware and software costs. Over three years, the hardware and software cost savings would average \$67,957 per branch office annually.

Bandwidth consumption savings. The companies surveyed also expect to save an average of \$8,014 annually in bandwidth costs over the three years.

Additional savings typically come from increases in IT efficiency resulting from deployment of the IT solution. Since the server was not installed in a production environment, it was not possible to determine the potential impact on IT headcount of deploying the server. However, in view of the measured improvements in IT staff productivity, it is likely that production deployment of the server will result in significant IT payroll savings — and a higher ROI.

Payback and ROI. IDC projects that the companies would invest an average of \$60,868 per branch office over three years in deploying the Windows Server 2003 R2 in all branch offices, including the initial purchase price, installation, IT support, and training.

For the Windows Server 2003 R2 customers surveyed, the anticipated total benefits averaged \$84,059 per branch office per year. IDC accounts for the opportunity costs realized by not having invested the initial amount in some other instrument yielding a 12% return. This results in a net present value for the three-year savings of \$147,790 per branch office.

Based on these numbers, the payback period from deploying the Windows Server 2003 R2 averaged 5.1 months for the companies surveyed, yielding an average return on investment of 274%.

CHALLENGES/OPPORTUNITIES

The server operating environment market remains a competitive place, with Unix servers, Linux servers, and Novell NetWare servers widely deployed on a worldwide basis and within branch office operations. Microsoft and its competitors are challenged to deliver reliable, secure, and available server operating systems that support business-critical and mission-critical workloads — and yet do so in ways that are easy to use and do not require extensive training to use them.

Microsoft's specific challenges in this market are to keep adding new features that address the top IT and business requirements. Chief among these is ensuring secure, efficient operations on an ongoing basis, along with supporting high availability for the data and applications on which a business depends.

IDC notes that while Microsoft Windows 2003 R2 provides additional security features, the improvements from these features were not explicitly quantified as part of this study. So, while IDC expects business benefits to stem from the additional security capabilities built into Windows Server 2003 R2, this study did not produce hard data on the extent of those benefits.

More important, many of the changes in Windows Server 2003 R2 address the daily tasks associated with the writing of files and the safe storage of files — long a concern for small sites where a lapse in archiving and strict IT procedures can result in a serious loss of data later on, perhaps as a result of natural disaster or power outage. And, given the rise in interest about improving server utilization through the use of virtual machine technology, Windows Server 2003 R2 provides a path for branch sites to move to virtualization technology without buying additional layered software to make that transition. So ease of use and integration of function are seen as elements of Windows Server 2003 R2.

However, in most cases, cost savings cannot be realized without a prior investment. In the case of Windows Server 2003 R2, for customers to gain full benefits of this new product, the customers will have to purchase and deploy this latest product. There remains concerns about the support life cycle associated with Windows Server 2003 R2, including the projected mainstream support life cycle which is slated to transition into extended support at either 5 years after the release of the original version of Windows Server 2003 (2008), or 2 years after the release of the subsequent product (Windows Longhorn Server). The latter condition is most likely to be exercised, which would extend mainstream support on Windows Server 2003 R2 out to mid-2009.

For customers considering a deployment today, the company provides up to three years of mainstream support after the product releases. However, IDC also recognizes that Microsoft has a history of extending mainstream support based on customers' needs, including customers' inability to transition to newer products quickly enough to meet Microsoft's schedule.

IDC has a second concern related to the broad usage of Windows Server 2003 R2. The data presented in this study is based on the assumption that all servers in a company's organization are updated to Windows Server 2003 R2, thereby reducing TCO costs on all of a company's servers that are related to supporting the branch office workers. However, in the real world, it is rare for a customer to quickly transition

from an existing installed base of server operating environments to a newer product. Such transitions typically take several years, and existing servers remain in the branch environment, often for secondary uses, after the first three years of deployment for a particular application or workload have elapsed. As a result, the benefits presented would be an ideal scenario that few customers would actually realize given the continued use of a mix of Windows Server products.

CONCLUSION

Branch offices remain a key cornerstone of Microsoft's installed base for Windows servers worldwide. The franchise that was built up with the 1996 launch of Windows NT Server 4.0, and expanded with Windows 2000 Server and further with Windows Server 2003, is gaining a series of enhancements addressing file replication and file/print capabilities, improved WAN compression and selective replication capabilities, as well as identity management, storage virtualization, and interoperability with Unix systems installed at company headquarters.

Branch offices are heavy users of Microsoft Windows servers, but typically branch offices have limited IT staff — enough to maintain daily operations or none at all. Typically, branch offices look to central-site datacenter IT staff or to third-party independent companies to add IT resources that can be focused on branch-office operations and IT requirements.

IDC believes that Microsoft is showing its ability to focus on the day-to-day, operational business requirements for this key customer set in branch locations — even as it continues to enhance ease-of-use features that help branch end users to maintain business processes with limited IT resources available at their branch sites.

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