Recovery Manager —
A Superior Alternative For Windows System Recovery

For restoring Windows systems, Recovery Manager has three distinct advantages over imaging products, disk-based backup solutions, and tape backup:

- Speed: It can restore a system to a working state more quickly than other solutions
- Data integrity: It does not destroy or over-write valuable data
- Root-cause analysis: It allows you to diagnose problems and proactively prevent re-occurrences

Recovery Manager complements existing enterprise imaging and backup solutions, serving as a first line of defense against system downtime. It adds a significant new layer to the standard protection strategy for corporate IT assets; enterprises that deploy Recovery Manager achieve faster time-to-recovery than would be otherwise possible.

Imaging, disk-based, and tape backup products – such as Symantec Ghost, Powerquest V2i Protector, and the NetBackup line from Veritas – can create and store images of an entire volume. Imaging software (deployment tools used as recovery tools) typically maintains a default system image that includes a standard operating system and set of applications, maintained in a pristine state, but does not include application data and settings. Disk-based backup solutions may add in application data, personalized settings and configurations, and other information in real time, but impose a heavy burden in storage requirements. Tape backup provides a similar level of protection to disk-based backup, but does not typically operate in real time.

Any of these solutions can be utilized when a system fails, with varying degrees of data loss and system downtime. As Greg Valentine, Winternals Manager of Technical Sales puts it: "Whenever a disk volume is overwritten as part of a recovery, the process is destructive by nature, and is always time-intensive."

Recovery Manager offers a distinct alternative — a rapid and surgical approach to system recovery. It restores operating system files and registries to a working state without overwriting application data and user settings. Recovery Manager can also restore multiple systems on a network simultaneously. This is of particular value when faulty OS updates, rollouts of unstable applications, or viruses and malicious code damage large numbers of Windows systems simultaneously.

Instead of copying entire drives, Recovery Manager tracks and records only the files that are essential to the functioning of the operating system. To reduce storage requirements, Recovery Manager copies only unique files; for example, it maintains one copy of any given Windows XP system file, no matter how many Windows XP machines may be present in an enterprise. Since each registry is unique, Recovery Manager records the full registry for each system. Because of this methodology, Recovery Manager

snapshots — called Recovery Points — are extremely small in comparison to hard drive images. The result is a far smaller storage burden and far less network overhead.

Recovery Manager restores systems quickly. When a system is unstable, or will not boot at all, Recovery Manager can boot the machine to a repair environment which allows the machine's critical system files and configuration files to be rolled back. Because of the limited data set involved, and because the data moves at network speeds, the entire process can take a matter of minutes. In instances where Recovery Manager is used in lieu of traditional backup and restore, time to recover is reduced by as much as 90% per incident.

Once a system is restored, the administrator can examine the Recovery Point to see what went wrong. This is an extremely important difference, Valentine says. "Traditionally, when a system crashes, they re-image, lose a lot of data, and then the administrator has to guess what went wrong. With Recovery Manager, administrators make surgical repairs, get systems running with no data loss, and then determine just what did go wrong."

Recovery Manager's custom repair capabilities provide another distinct advantage over imaging and backup solutions. With Recovery Manager, administrators have the option to view all changes to system files and settings over time, selectively undoing as much or as little as necessary to make repairs. So, for example, should an Internet worm replace system files and registry settings with malicious code, an administrator can track down the infected data and replace it with known good versions using just a few mouse clicks.

Recovery Manager's pinpoint analysis and recovery delivers a unique, first response to harmful changes that can occur in multiple systems — particularly welcome when fixes from antivirus vendors or OS and application developers are slow to materialize. The ability to monitor the changing states of Windows operating systems also provides IT personnel with valuable knowledge to plan for change in the enterprise environment.

Combined, these advantages make Recovery Manager an attractive companion to imaging and backup. While some imaging solutions have the ability to selectively restore individual files from an image without going through the traditional process of deploying the complete 'stale' image, the process is not automated. In contrast, Recovery Manager automatically knows which system files to restore.

Imaging solutions work well as provisioning tools, and only slower, more destructive tape and disk-based backup methodologies can serve in the event of complete hardware destruction or theft. However, Recovery Manager offers a faster, less destructive repair alternative when OS issues are at fault. Recovery Manager allows administrators to recover failed servers and workstations faster, more economically and less destructively than is possible with conventional recovery techniques, via the network, with no data loss, and no need to reconfigure application and OS components.

The majority of data loss problems — including software corruption, hardware conflicts, and malicious code — can be resolved with Recovery Manager, making restoration from tape or disk backup necessary only as a last resort. "Published vendor data demonstrates that operating system failures occur more than 40 times as often as hardware failures," said Paul Del Piero, Winternals' VP of Business Development. "It doesn't make sense to use slower, potentially destructive techniques when Recovery Manager's fast, surgical approach can be applied up to 97% of the time."

Recovery Manager provides marked reductions in recovery time for Microsoft servers and desktops throughout the enterprise, delivering improved service levels, higher end-user satisfaction and lower TCO. None of the backup and imaging products in the market utilize this unique "OS-recovery" approach.