

Using Windows Virtual System State (VSS) *Problem Solved Without Expensive Software*

On most modern backup software, the Windows clients have an added layer of backup protection via the Windows VSS. VSS is the Virtual System State also known as Shadow Copy. This is only available on Windows 2003 server, XP, and Vista. Essentially VSS allows archival software to get a system snapshot of the files so that they can be backed up in a "raw" state. This feature may even obsolete some expensive software that is purchased for this exact reason. However, depending upon the latest feature set of the software you use, it may not.

In general backups without any "live backup" will error on Windows system files. Specifically the pagefile.sys and other related system files. Also, most backup software will error out on open files. For instance, if I try to backup a Word document while it is open, the backup software will error out with something to the effect of "cannot open file." This is because the program opens the file with an "exclusive lock." This prevents any other software from opening the file to make changes while it is being used. This prevents multiple users from using a file at the same time that changes are being made.

Unfortunately, the side effect is that most times backup software cannot open the file either. Enter VSS. VSS allows the backup software to get a "snapshot" of these files without the exclusive lock. Thus your file will be backed up in a moment in time. Problem solved without expensive software.

Unfortunately VSS does not solve all problems. Some critical Windows files are unable to be locked because they are in perpetual use by Windows. Thus VSS does not help. Software can create a lock on the file before the OS is booted, but this is often times expensive.

An alternate to the VSS and other related software in this case, would be to do an offline backup of the Windows system. Most reputable backup software has the power to do this as well. In the event of a disaster, this allows the administrator to restore the OS at the offline level, and then restore files from the subsequent online backups. Thus the system is fully restorable using the backup software. Ultimately, flexible backup software allows a prepared administrator to fully recover any system in a disaster event.

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