

How Diskeeper Reduces Help Desk Workloads



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As the Server Administrator of Diskeeper Corporation, I am well aware of what sort of issues are occurring for my users as regards both the servers and workstations. Nearly every task that is run on a workstation is somehow related to a server system—whether it is a database server, mail server or firewall. Having Diskeeper running on all systems considerably decreases the amount of e-mails and calls to our Help Desk.

To highlight how automatic daily defragmentation can ease the load of Help Desk requests, I'll walk through an average Monday morning for a typical enterprise user logging on his system and beginning a few tasks. This demonstration, while quite simple, will give insight as to where Diskeeper can really save the time and effort of Help Desk personnel.

First, the user powers on the system. While the system is booting up there is a rush of data being transferred from the hard disk into system memory to get the operating system ready for the user. This initial burst of data during boot up is where unruly disk fragmentation first rears its ugly head. I've witnessed start-up times (time from power on to logon prompt) decrease from a lethargic 76 seconds to a svelte 28 seconds with just one pass of Diskeeper. Just about all Help Desk personnel have been inundated with calls about slow boot times; having the disk automatically defragmented can drastically speed boot times and prevent such Help Desk calls.

After boot up, most enterprise users encounter the standard Microsoft® Windows® logon screen. When the user logs on, another torrent of disk activity occurs as the workstation hard disk and file server hard disks synchronize user profile content. This is the first time we encounter a server bottleneck as users log on simultaneously on a Monday morning. The server that holds user profiles must be ready for this heavy flow of traffic by having its hard drives defragmented as well as the respective workstations pulling the profile. This eliminates Help Desk traffic as users will cease complaining about excessive logon times.

Another quite common issue that is reported to Help Desks is lethargic e-mail access. For instance, if a user is using Microsoft Outlook® connecting to Microsoft Exchange, then mail stores are located on the server. These stores can grow to gargantuan sizes scattered across a disk, causing both file and free-space fragmentation. Additionally, many users have their e-mail cached locally to their workstation. This combination puts amazing stress on the hard disks in both systems that, left unchecked, will severely degrade over time. I have had colleagues of mine, when first analyzing their disks using Diskeeper, report an astonishing number of fragments in their mail servers—one even reported over 1.5 million file fragments! After running Diskeeper to quickly eliminate those fragments, she reported a sharp reduction in the number of calls she received to troubleshoot e-mail slowdowns and was heralded as a hero amongst her IT colleagues. I recently followed up with her and she said that she now receives only 2 or 3 Help Desk calls a *week* with regards to her e-mail server whereas she was getting 2 or 3 calls *per day* before running Diskeeper! Unsurprisingly, she also said the time to back up her mail databases daily decreased by over 3 hours and server stability increased.

Going back to our example, let's say our user takes a break and opens up a web browser to check some sports scores. The temporary Internet file folder is a well-known culprit of performance problems as this disorderly group of files can wreak havoc on even the most cutting-edge workstations. These files, as well as other temporary files, are constantly written to and deleted from the local hard disk. This continual writing and deleting of files causes free space

fragmentation which, in turn, creates file fragmentation as new files are written to the fragmented free space. Now the user's ability to access files or write files slows down more and more. Users may justifiably ring the Help Desk to find out why the Internet connection is so slow when pulling up a simple web page. The network administrator may even be contacted to verify that the main Internet connection is online and bandwidth is available. To fix this "slow Internet" dilemma, it is even possible that a wider Internet connection may be purchased to fix a bandwidth problem that doesn't actually exist!

This simple demonstration highlights how fragmentation can generate calls to the Help Desk for even the most basic of routine user tasks. Additionally, there are other performance problems the Help Desk staff have to troubleshoot. Almost every task that the IT workforce can do to help end-users is made easier with Diskeeper—virus scans, spyware scans, software installations, and patch installations to name only a few. Without a doubt, the most prevalent and alarming of these issues is spyware. Diskeeper can save time handling spyware infestations as well. By having the disk automatically defragmented, a spyware scan will invariably take less time. According to security guru Joe Kinsella of *Windows IT Professional* magazine, a spyware scan he ran took 144.3 seconds on a "medium fragmented" system. After defragmenting the drive with Diskeeper, that very same system took 64.5 seconds to complete the spyware scan—a reduction of over 55%!

Having done IT consulting in the past for dozens of medium and large businesses, I've been witness to an alarming trend: buying newer and faster hardware to alleviate performance issues when the root of the problem is disk fragmentation. The sheer amount of effort by IT personnel that goes into pricing, purchasing, and configuring these new systems is astounding, especially considering the latest and greatest computers will do little to appreciably boost server or workstation speeds when the disk is fragmented. As with *any* machine, a computer is only as fast as the slowest component (the hard disk) and there is nothing that a thousand processors or a terabyte of RAM can do to speed it up.

A networked corporate environment with Diskeeper installed on every server and workstation is a real blessing for IT support personnel. As the hard drive is far and away the biggest bottleneck in modern computers, automatic daily defragmentation using Diskeeper on every computer in your enterprise can realistically save time and significantly reduce easily-preventable traffic to your Help Desk.