What is the one mission-critical thing an engineering firm known for precise measurements does NOT measure when tunneling under the sea?



Image courtesy Parsons Corporation

A world-class engineering company that builds tunnels under manmade islands must make very precise calculations, measurements, and meet strict tolerances. It relies on one product to keep its 450 worldwide servers operating at peak performance – Diskeeper

The Palm Jumeirah is a man-made island, meaning it was reclaimed from the sea. It is roughly 5Km in diameter with an area of 600 hectares, adding 75Km to the Dubai shoreline. Not only will the additional coastline create leisure opportunities for residents and visitors, but also it will provide habitat to marine life.

Parsons is supervising construction services for a 1.4Km sub-sea vehicle tunnel to connect the spine of the island to the outer crescent. The deepest point of the underwater tunnel is about 25m below the high water level.

An engineering company that builds tunnels under manmade islands must make very exact calculations and measurements, and be held to close tolerances. That's the only way to ensure safety; and it's also the only way to maintain control of costs – because even wealthy oil countries don't have bottomless pockets.

Parson counts on Perot Systems to manage its IT infrastructure. Perot Systems is a Fortune 1000 corporation with more than 21,000 associates and 2006 revenues of \$2.3 billion. It was the highest ranked IT firm and 5th overall in the Information Week list of 500 most innovative users of technology, and second highest ranked Information Technology services company on Fortune's list of America's Most Admired Companies for 2006.



Perot Systems counts on Diskeeper to save time and extend the life of its computers.

"Diskeeper expands the life of the computer, as it keeps hard drives operating efficiently without computer crashes, thus saving user data," said Darrell Monroe, Perot Systems Financial LAN Administrator.

"I mainly use my system to administer all of the servers and workstations on the Finance Network. **Diskeeper is working perfectly on our systems**."

Andy Horton is a Parsons Distributed Computing Network Administrator. As a Network Admin Andy is assigned responsibility for the servers in his region, as opposed to a Network Engineer who is responsible for routers and switches.

Most of the Network Admins Perot has at Parsons have been using Diskeeper for a long time.

"Perot Systems installs Diskeeper on all 450 active Parsons servers, at every location worldwide," said Andy.

"We have been using Diskeeper as part of our standard build for approximately five years, and have found it to be far superior to the native version currently shipping with Windows."

Today Parsons is a Windows 2003 shop, but it started using Diskeeper years ago when running NT.

"We were told that with NFTS you don't need to defrag, but as soon as we installed Diskeeper, we saw how fragmented the drive actually was," Andy said.

Windows 2000 included a trimmed down version. Wanting the advantages provided by Diskeeper, the team began buying the full version with each server.

"The various schedule options, analysis, FragShield, and offline defrag are very easy to use," Andy said. "The ability to install and configure the software one time without the constant need to go back and tweak the install has been a great time saver."

Andy is personally responsible for 183 of the 450+ Parsons File, Print, Application, and Domain Controller servers that Perot Systems manages. So what was the performance boost when Diskeeper was installed?

"It speeds up backups and imaging," Andy said. "I just know that when I build servers, if I'm imaging a server and I have it defragged, it's quicker. How much quicker? I haven't pulled out a stopwatch, but I'd guess around 25 percent. And it just makes sense."

Surprisingly, the same company known for its precision engineering has never measured how much performance improvement it realized by installing Diskeeper on its 450 servers worldwide.

"We never did a study, and it's working now... I don't want to pull it off servers just to find out" Andy said.

The Parsons Distributed Computing Team viewpoint is to prevent downtime before it happens, rather than fixing it afterwards. And it uses Diskeeper to do that.

"We deployed Diskeeper to reduce or eliminate fragmentation, to decrease backup time and file access time on our servers. We have 10,000 users and Diskeeper is cheap insurance for preventing downtime."

- Andy Horton, Parsons Distributed Computing Network Administrator

Over time fragmentation can cause corrupted files. With Diskeeper on every server Andy's team sees very little fragmentation across the board; therefore files are less likely to become corrupted and less downtime is experienced. So how much has Diskeeper reduced downtime?

"It's an inexpensive product when compared to downtime. Does it decrease backup times? Absolutely. Has it prevented file corruption? Most likely. Does it improve user file access times? Yes. I know that performance increases, the backup times are less, and when you average that out over 400+ servers, then it's significant."

When a server is running slowly, the first thing most admins check for is fragmentation. All Parsons servers are set to automatically defrag, so when there is a problem the admins know right away the cause is not fragmentation.

"We don't see downtime from fragmentation because we use Diskeeper," Andy said.

"We deployed Diskeeper to reduce or eliminate fragmentation, to decrease backup time and file access time on our servers. We have 10,000 users and Diskeeper is cheap insurance for preventing downtime."

The team considers defragmentation of its servers as a required preventive maintenance and performance measure that it owes to clients. By keeping file systems regularly defragmented, there are fewer corrupt files, faster backup and restore times, and quicker disk response.

"We use Diskeeper on all of our servers at every location worldwide," said Andy. "I recommend Diskeeper to anyone tasked with maintaining mission critical servers."

Founded in 1944, Parsons Corporation is one of the largest 100 percent employee-owned engineering and construction companies in the United States, with 10,000

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employee-owners worldwide. Revenues exceeded \$3 billion in 2005. The company placed 11th out of 500 most innovative users of technology by InformationWeek, and was the top ranked Engineering and Construction firm.

Headquartered in Pasadena, CA, Parsons Corporation has been working in the Middle East since establishing its first office in Abu Dhabi in 1978. Currently there are 1,000 Parsons employees working on Middle East projects.

Founded in 1981, Diskeeper Corporation is most known for its Diskeeper defragmenter, which enhances file system performance automatically. With over 25 million licenses sold, large corporations rely on Diskeeper to provide unparalleled speed and stability to their laptops, desktops, and servers. Diskeeper Corporation further provides up-to-the-minute data protection and instant file recovery with Undelete®. A variety of system management tools, trialware, and free utilities are available at www.diskeeper.com.

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