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# BACK IN A FLASH

Gateway business continuity solution prepares the Metropolitan Sewer District of Greater Cincinnati to withstand disasters.

In 2000, a flood devastated the Sycamore Creek Wastewater Treatment Plant, one of several outlying facilities operated by the Metropolitan Sewer District of Greater Cincinnati (MSD). Flood waters inundated the first floor, permanently destroying data stored on the plant's server.

"The building was still there, but it was uninhabitable," said Marty Hubbard, computer systems analyst for MSD. "Back then, we didn't have a backup unit out there. We learned a lesson, and we figured we've got to do something."

With 217,000 commercial, industrial and residential connections depending on MSD's services, it's crucial that the organization's IT systems continue to function under adverse conditions. After the Sycamore Creek flood, MSD implemented backup capabilities, but the solution the agency first settled on could take hours, if not days, to recover after a disaster. Recently MSD implemented a new solution that will trim recovery time to a matter of minutes.

Hubbard and Don Sander, computer systems analyst, are part of a 13-person IT group that tapped Gateway to orchestrate a disaster recovery solution combining Gateway servers, Hitachi SANs and Topio backup software for MSD. The new solution replaces traditional backup tape methods by maintaining a virtually perfect replication of all data on MSD's servers and workstations. If a natural disaster ruins the servers, the backup solution can easily download a replicated version of the data,

completely restoring the server's full image to how it looked before the crash.

"It is an image of the system," Sander said. "It's like going over and turning on a computer, and it's an exact duplicate of the one you just lost."

The technology slashed server restoration time from hours to roughly 30 minutes, according to Sander.

More than a year ago, Sander, Hubbard and their team realized that MSD's old backup tape recovery system would take too long to restore missing data. Furthermore, they would need to juggle several backup tapes (hoping they would work correctly and not be missing data), load multiple software suites and operating systems, and make sure they configured it all perfectly. After all of that, they would finally be able to begin their recovery process.

"This takes hours — almost days — to do. So we were looking into a better solution of getting systems back online, and that's where Topio came in," Sander said.

## Long-Distance Relationship

The new solution enables MSD to provide data backup for outlying plants, while keeping services synchronized at MSD's headquarters. Sander said this function would have come in handy with the flood at the Sycamore Creek plant.

Naturally, not having to buy extra backup hardware for remote plants brings MSD huge savings in

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**Marty Hubbard,** computer systems analyst, MSD

## Customer Profile

- Agency:** Metropolitan Sewer District of Greater Cincinnati (MSD)
- Mission:** Created as a partnership between the city of Cincinnati and Hamilton County, Ohio, MSD serves most of the county's municipalities and has wastewater collection and treatment facilities throughout the county.

**Technology Objective:** Reduce restoration time for servers in case they are taken out by a catastrophic event and provide long-distance backup services to outlying plants with no backup capability.

**Gateway Solution:** MSD now uses Gateway servers, Hitachi SANs and Topio software to restore server functionality in drastically less time and provide backup services to outlying plants using a T1 line.

**ROI:** Topio slashed MSD's server restoration time from several hours to 30 minutes. Outlying plants won't lose their data in a disaster because of Topio's distance backup capabilities.

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**Don Sander**, computer systems analyst, MSD

labor and technology expenses. Instead, server data travels between remote plants and MSD's headquarters through a T1 line efficiently enough that it doesn't deplete the plant's bandwidth, said Sander.

Gateway helped MSD deploy the new backup solution using its partnerships with Hitachi and Topio. Sander said the solution is incredibly easy to use, particularly when setting up synchronization.

"I've worked with a lot of different backup systems, and they're horrendous to set up," said Sander. "This is Web driven. You pretty much just click, drag and click. It's so easy. It's a dream."

Combining that simple functionality with MSD's reliable Gateway servers and Hitachi storage makes outlying plant backups and everyday maintenance a far less cumbersome task.

Sander said he conducted mock disaster and recovery trials with the new solution and couldn't believe how easy it was to restore the system, which was a dramatic contrast to using traditional backup tapes.

"There are so many things that can go wrong with the old backup tape method," Sander said. "I feel a lot safer now."

### Steady and Reliable

Working with Gateway to deploy the disaster-recovery solution was an easy choice for MSD, according to Hubbard. The organization has used Gateway products since 1992.

MSD has more than 500 Gateway computers, a mixture of desktops — most recently, the E-6500 with Intel® Pentium® 4 processor and Gateway Profiles with Intel® Pentium® 4 processor. Hubbard and Sander prefer employees to use Gateway Profiles whenever possible because of their compact size.

Hubbard said Gateway Profiles take up a small amount of space on employees' desks, and the absence of desktop floor units solves the problem of

water getting into the hardware when cleaning staff mop the floors. The Profiles offer the same speed and power as a regular desktop in a smaller package, he added.

"Profiles are easier to transport," Sander said. "The section I work in — they have a tendency to move around a lot. I really love it when they've got a Profile, I'll tell you that."

Like most Gateway customers, MSD appreciates Gateway's service and detailed knowledge of public-sector IT, particularly Gateway's commitment to working with in-house IT maintenance staff. Hubbard said past vendors forced him to wait for the vendor's technician to show up and inspect a part replacement request before sending him the part.

"Other vendors, they send a tech out to look at [the problem] and make sure you actually know what you're talking about," said Hubbard. "Then they order the part, and the part arrives three days later. With Gateway, I call or fill out a form for a major part replacement, and the part arrives the next day — no questions asked."

### Pre-Emptive Doctrine

Gateway's comprehensive solutions help MSD do what it does best: provide superior service to residents and businesses in the greater Cincinnati area. MSD now has a proactive policy for handling disaster recovery, said Sander, so it can provide those services no matter what might happen.

"We used to be more of a reactive type of plant, and it costs money when you're reactive," Sander said. "This made us more proactive. We're collecting the data, generating the reports and giving them to the right people, so they can make the right adjustments earlier, before we get hit."

That's good news to the 217,000 commercial, industrial and residential customers that depend on MSD.



The MSD relies on a Gateway solution to avoid crippling data losses. The Gateway E-9510T server with Intel® 2.80 GHz Xeon® processor provides organizations with easy server management and high-bandwidth network redundancy.



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