



Case Study — City of San Carlos, California

City Government Adopts Innovative New Rack-Mounted Disk Drive-Based System for Backup, Archiving and Disaster Recovery of Critical Government Data

Background

The City of San Carlos, California, incorporated in 1925, is located 23 miles south of San Francisco and 23 miles north of San Jose. The municipality of San Carlos covers 4.83 square miles and reported a 2002 population of more than 28,000.

The Problem — File and Full Server Restorations Were Slow with Tape

Storage, backup and protection of the immense amount of electronic data and digital content generated by the City of San Carlos governmental and Police departments, is a critical component of the municipality’s IS infrastructure.

To support the City’s extensive data backup and disaster recovery policies, the organization’s IS manager required a solution that was durable enough to endure the City’s requirements for daily media rotation and offsite archival/vault storage of the City’s data. The IS department preferred a technology that was easily expandable with extremely fast restoration because of the large number of file restores their program required (over 50 individual file restores and 2 to 3 full system restores in a year). It was estimated that using DLT tape wasted 15 to 20 minutes per file restore and up to 8 hours for a full system restore.

The City sought a cost-effective data storage solution that would enable backing up vast amounts of critical data safely, quickly and easily while guaranteeing that data could be restored very quickly in the event of a server failure. In addition, to make the learning curve as short as possible and to use existing resources, the chosen solution would have to be compatible with the City’s existing Veritas backup software.

The Solution

To find the perfect solution, the City turned to San Jose-based IT consulting firm Dugger & Associates. President and CEO Randy Dugger recommended the adoption of Olixir Technologies’ Rackmount Backup-to-Portable Disk system. “Implementing Olixir’s highly rugged, high-speed, simple portable hard disk drive storage solution provides complete data protection and disaster recovery,” explained Dugger. “It’s the premier solution for highly reliable backup and ultra-fast restoration.”

The City’s selected system included a rack-mounted SCSI chassis with three sets of mirrored Mobile DataVault 3DX portable drive bays (six 160 GB drives). One mirrored bay was designated for City data, one was for police data and one was for miscellaneous data.

Impact — Veritas-Compatible, Faster Backup, and Restoration in Seconds

Ultra-Fast Restoration — Since Olixir’s system uses hard drive-based technology, file restorations took just seconds, versus 15 to 20 minutes with tape. And full restorations were completed in just over one hour compared to 6 to 8 hours with tape. Dugger stated, “The number one advantage of using hard drives over tape is the restore time — tape cannot touch the restore time of a hard drive-based solution.”

Compatibility — Because the new Olixir Rackmount Backup-to-Portable Disk system is compatible with Veritas Backup Exec™, the City's existing tape backup software solution, City staff members simply enabled the "backup-to-disk" option and quickly ran their first backup. "With Olixir's system in place, live servers can be backed up quickly and reliably with no down time. Since Olixir's system is compatible with Veritas Backup Exec software™, IT administrators can verify that data has been properly backed up with an extremely high level of confidence," Dugger explained. "Best of all, Olixir's disk drive-based technology, combined with the differential backup option of the software, allows users to achieve highly efficient backup times compared to tape backup."

Data Security — Olixir's new Rackmount Backup-to-Portable Disk system was configured at the City of San Carlos with "mirroring" for added data security. The implemented mirroring provided the City with two copies of data instead of just one. According to Dugger, "Olixir's portable drives are small enough so that up to eight drives can be placed in a rack-mount chassis. By offering mirroring and RAID options in its rack-mount system products, Olixir is able to provide small and medium enterprises with highly secure backup and disaster recovery, with no need for tape. Other companies offer RAID hard drive options, but still rely on tape for final archival. Olixir completely eliminates tape from the equation."

Ruggedized Drives Enabled Easy Media Rotation — Protected against shocks of up to 1200 Gs, the Mobile DataVault 3DX Portable Drives are the first viable tape-replacement solution using disk drives. The hot-swappable portable drives are protected against bumps, knocks, and accidental drops, just like tape. But unlike tape, Olixir's portable drives have the advantages of hard disk drives: random access, higher speeds and unsurpassed recording reliability. Olixir provided an easy-to-use, cost-effective solution that allowed the City to fully implement its robust media rotation, offsite archiving and disaster recovery programs.

Versatile Interface — The versatile Olixir system enables the IS department's laptop computers to be used to restore single files at any time. Whereas the previous system required time-consuming manual setup work prior to restoring a system, Olixir's interface allows users to restore by simply plugging one of the Mobile DataVault 3DX portable drives into the laptop on the secure network, saving up to 45 minutes in setup time per restore.

Results attributed to the integration of the Olixir's Backup-to-Portable Disk system at the City of San Carlos include:

- Restore time of files decreased by over 2500%
- Infinitely expandable to higher capacity drives and can be daisy-chained
- Saved up-front investment by over 33%
- Hot-swappable, ruggedized drives allow fast backup and offsite storage in vaults
- No software switch necessary
- Versatile interface allows for restoration to every platform in the company, including laptops
- Three-year warranty vs. typical one year warranty for tape-based solutions

Mobile DataVault Hard Drive — The Perfect High-Capacity Portable Storage Solution With Cutting-Edge Durability, Olixir Solves Fragile Nature of 3.5" Hard Disk Drives

Olixir's drives are shock protected to 1200 G, offering over 425% greater shock protection compared to almost every other popular 3.5-inch external hard drive. This industry-best shock protection makes the drive so durable, it can survive accidental drops and can handle daily insertion and removal in its 5.25-inch Databay chassis. Laboratory testing shows that this solution provides breakthrough reliability, with over four times higher Mean Time Between Failure (MTBF) compared to drives without shock protection. Olixir warrants this drive for three years, compared to just one year for most tapes and other external hard drives.

Darshan Shah, President of Olixir states, "Until now, no other disk drive solution could completely replace the function of tape because disk drives were too fragile to be rotated daily and transported for offsite archival. Our patent-pending shock protection technology changes that. However, this incredible level of shock

protection comes WITHOUT greatly increasing the physical size of the drive — our portable drives are over 40% smaller than most other popular DESKTOP external drives that have no shock protection.”

For more information, contact Olixir Technologies at (800) 719-0595 or visit www.olixir.com.