JetStor®
Storage. Solutions. Support.

A NAS Solution for Fast Data Recovery

AC&NC JetStor NAS 1600S 12G Unified Storage System
10Gb/sec links

10Gb Ethernet switch
10Gb/sec links
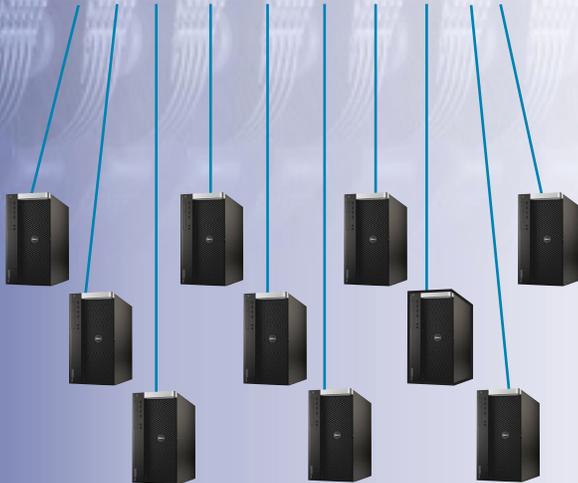
Data Recovery/Imaging workstations

JetStor® NAS Platform Speeds, Simplifies & Secures Critical, Time-Sensitive Data Recovery

THE ORGANIZATION

Datarecovery.com, Inc. offers services you hope you never need, but when you do, you are very glad they are available. Datarecovery.com, formerly ESS Data Recovery, Inc., is one of the world's first data recovery companies and today is a global leader in data recovery and computer forensics services. Based in Illinois with labs in California, Arizona, and Ontario, it pioneered firmware repair tools, clean flow benches, and other technologies now used in all major recovery laboratories. Its staff, comprised of foremost computer forensics experts, can recover data from nearly any media that stores bits and bytes, including RAID arrays, SANs, NAS deployments, data tapes, and flash media.

THE CHALLENGE

The first task at Datarecovery.com is to clone each disk that requires recovery. Engineers then work with the imaged volumes to restore a usable version of the client's files, thereby protecting the client's media. Cloning a drive, however, takes time.

"Clients often need their inaccessible data immediately for business operations," said Ben Carmitchel, president of Datarecovery.com. "Every second counts in the data recovery industry."

Maintaining a large library of duplicate hard drives posed added problems. A single drive lacks redundancy, so to prevent a drive failure from endangering a client's data, engineers had to create multiple physical duplicates, resulting in a large physical footprint.

Engineers must properly organize drives according to strict guidelines, which is also time consuming. They must manually locate hard drives and plug them in, another inefficiency. Moreover, the company wanted to eliminate its secure media destruction process, which involves degaussing older hard drives to ensure security.

Finally, any solution could not be noisy to ensure a quiet work environment and easy communications between engineers.

To address these issues, the enterprise researched network-attached storage (NAS) solutions as an alternative to physical images. It evaluated NAS products from various companies but confronted issues with their networking capabilities, storage efficiency, or operating noise levels. The solution that met all its criteria is the **JetStor NAS 1600S 12G 16-bay Unified Storage System** from AC&NC, which the firm installed at its Arizona laboratory.

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THE SOLUTION

One **JetStor NAS 1600S 12G 16-bay Unified Storage System** from AC&NC.

SYSTEM CONFIGURATION

- One **JetStor NAS 1600S 12G 16-bay Unified Storage System**
- One 10Gb Ethernet switch

BENEFITS IMMEDIATELY REALIZED

Datarecovery.com duplicates media directly to the **JetStor NAS 1600S storage platform** using a secure local network. The solution's speed eliminates bottlenecks at the image destination, reducing the time spent cloning drives. Whereas engineers had anticipated a 10 percent improvement in laboratory efficiency, they recorded a 15 percent improvement.

"The performance of the device is incredible," said Carmitchel. "As we constantly write and erase data to our duplicate media, we have fast, enterprise-level hard-disk drives capable of providing dedicated operation across thousands of complete read/write cycles."

By storing imaged volumes on the **JetStor NAS 1600S device**, engineers instantly locate cases and transfer recovered data throughout the local network. They eliminated two shelves of imaged hard drives, reducing the equipment footprint and improving laboratory organization.

In difficult data recovery cases, engineers can create partial images of hard drive platters to the **JetStor NAS 1600S platform**, avoiding damaged areas of the disk. While this was possible prior to the deployment, the NAS solution makes the process much simpler and more straightforward.

Engineers can now trigger older image backups for automatic deletion, avoiding need to degauss hard drives. Additionally, the **JetStor NAS 1600S platform** operates so quietly that it was deployed in the laboratory rather than in a dedicated network room.

HOW WE DID IT

Datarecovery.com worked with AC&NC to coordinate specifications and implement custom features to ensure data security—an essential consideration for computer forensics and data recovery work.

"Customization is a crucial consideration prior to any successful storage system deployment," said Gene Leyzarovich, president of AC&NC. "We considered several possible configurations and software options, eventually deciding on a solution that met the rigorous demands of a professional data recovery laboratory."

The **JetStor NAS 1600S Unified Storage System** in the Arizona data center of Datarecovery.com

Probability of Data Loss by RAID Level

RAID 0

RAID 5

RAID 1+0

RAID ADS

Total Number of Physical Drives in the Array
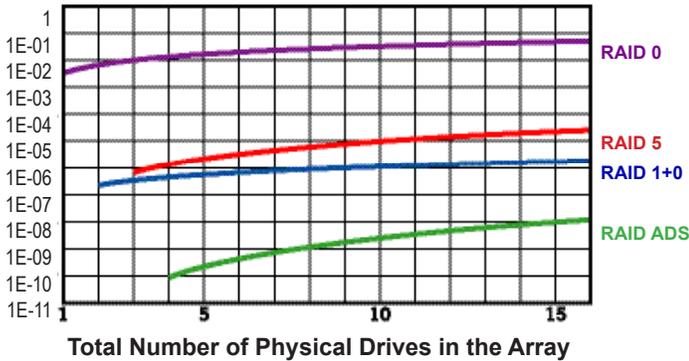
**AC&NC JetStor NAS 1600S
Unified Storage System**

JetStor storage solutions also offer many features that ease deployment, including monitoring tools with a graphical-user interface, onboard LEDs, and thin provisioning.

"The setup is amazingly simple" said Carmitchel. "The design and quality are better than I've seen in any storage device."

The 3U **JetStor NAS 1600S platform** supports NAS, Fiber Channel, and iSCSI. It is configured by Datarecovery.com for RAID 6 for superior redundancy and features dual power supplies, six network interface cards (NICs), and 16 hot-swappable, 10TB 7200 RPM 6Gb/s 256MB helium hard drives. With optional JBODs, the system scales up to 384TB of data.

The **JetStor NAS 1600S storage solution** links at 10Gb/s speed to an Ethernet switch, which connects to ten data recovery and imaging workstations.

CONCLUSION

Powered by the **JetStor NAS 1600S device**, Datarecovery.com accelerated its services while bolstering ease and efficiencies. It now has another tool with which to maintain its global leadership in data recovery.

"We'll always invest in state-of-the-art tech to give our clients faster service," Carmitchel said. "Our new **JetStor NAS-based storage system** enables us to be more efficient in our data imaging storage and management process."

ABOUT ADVANCED COMPUTER & NETWORK CORPORATION (AC&NC)

AC&NC™ / **JetStor** meets the evolving needs for data storage, protection, and management. We leverage leading technologies to offer high-value solutions for NAS, SANs, clouds, and hyper-converged infrastructures (HCIs). Since 1994, our customers have spanned virtually every industry, and range from Fortune 500 enterprises to small and medium-sized firms. We support environments from data centers and clouds to branch offices and remote sites.

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