

Data Recovery Case Study

SnapServer RAID6

RAID

RAID (Redundant Array of Independent Disks) is a data storage virtualization technology that combines multiple physical disk drives into one or more logical units for data redundancy, performance improvement, or both. There are various levels of RAID viz. RAID 0, 1, 5, 6 and nested RAIDs like 1+0, 5+0 etc. RAID6 uses double parity, for increased fault tolerance.

iSCSI

iSCSI is the most popular method of storage data transmission over IP/ Ethernet Networks. It allows remote iSCSI target storage devices to be accessible to Operating Systems as local SCSI devices

DynamicRAID™

DynamicRAID™ is a standards-based technology that gives the ability to expand storage pools automatically and storage volumes independently, optimize data protection levels and increase capacity with zero downtime.

RAID Case Study: Updated, May 2022



Background

The client brought the above NAS device for recovering data on an urgent basis.

The Storage Server initially had 8x2TB drives, and 4x4TB drives were added later for additional capacity. The DynamicRAID feature from the manufacturer allowed the expansion of storage on the fly.

As per the manufacturer's claim, "SnapServer DX RAID arrays are optimized and maintained automatically as drives are added, giving the best redundancy and capacities available in the market."

With a total storage size of 21TB and almost full data, the unit was working fine with exceptional read/write performance for a couple of years. However, the client reported that one day, the storage server reported multiple drive failure, halting data access. The medical records of hundreds of patients, some ongoing treatment were at risk.

Time and again, MORE expertise was on call, and we delivered on our promise, as expected.

Device: Overland SnapServer DX2
[Find the details on the website](#)

Architecture: NAS Server with 12 SATA drives and [DynamicRAID](#)

Operating System: Embedded GuardianOS 7.0.

Type of Data: Nearly 20TB of Images/archives from medical imaging devices within a premier Healthcare facility.

How did we crack the code?

We identified the complete failure of two drives during our diagnostic phase itself and a third one during the imaging phase. Employing our expertise in the Clean Room level recovery, we could fix those drives and make binary images.

The storage server employed a double-parity RAID (RAID6), which uses two parity stripes on each disk. It allows for two disk failures within the RAID set before any data is lost.

Apparently, we found that two drives had failed some time back and had been overlooked and later on, when an additional drive also failed, the redundancy of the array refused to function, and it stopped access.

It was apparent that the drive failure warnings went unnoticed inadvertently.

Fortunately, our experience acted as the key while working on cases like this; RAID6 being the toughest to crack, due to the presence of two layers of parity spread across the drives

Onsite Inspection

For complex NAS/ SAN cases, we can assist the customer with a preliminary onsite inspection*.

Call us for details

24/7 Technical Helpline

Data loss can happen to any of us, any time of the day. Should you require assistance, call our Technical helpline number.

Pickup & Delivery

We offer free pickup and delivery of your storage devices within the UAE*.

Priority/ Emergency Services available

Based on the client needs, we can attend cases during/ after office hours and holidays, until a resolution is made*.

Remote Diagnosis

If you are outside the UAE or need to diagnosis a connected storage device urgently, you can avail of our "Remote Diagnosis", via the internet through secure channels*.

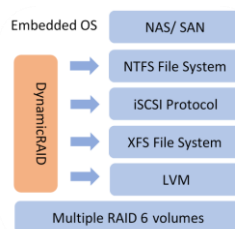
*Conditions apply

For more information on our services, please visit us on the web: www.datarecovery.ae

MORE @ your rescue, when technology fails

Summary

The NAS server had multiple RAID6 volumes stitched together to form a huge storage pool, which encapsulated the 21TB iSCSI file.



It took several days of analysis and numerous attempts to reconstruct the RAID virtually and access the data.

However, in the end, the customer was delighted to have the full data restored, in its original shape and form.

About Us

Ensuring Business Continuity in the event of storage failure at our customer's premises is our primary concern. Be it a Laptop, Desktop, Internal/ External Hard Disk, SSD, RAID server, NAS/ SAN/ DAS device or a complex virtualized environment, our technical expertise and years of experience ensure that the client is **back in business** within the **lowest possible downtime**.

DATA LOSS CAN HAPPEN TO ANYONE. IF THE DATA COSTS YOU YOUR BUSINESS, WHY TAKE RISKS?

- **MORE Datarecovery LLC** specializes in providing professional data recovery services for all types of RAID's. Since 2001, we have received countless accolades for our unmatched quality in restoring mission-critical data from all sorts of storage devices.
- Feel free to contact us, if you require assistance in the recovery of your critical data. We are more than glad to examine RAID arrays and other storages deemed "non-recoverable" by other companies, often a recovery is possible in most cases.

Disclaimer: the real case alluded to was used to showcase a typical data loss scenario that can happen to anyone in today's digital workplace and to emphasize the importance of employing Professional Data Recovery Services. It never implies that the storage unit used by the client was inferior by any means.

Our other services include:

- ✓ Data/ Mobile Forensics
- ✓ Backup Solutions
- ✓ Storage Solutions
- ✓ Disk Wiping/ Data Sanitization

Our Mission

Delivering value to our clients with Prompt, Secure and most Affordable Professional Data Recovery Services needed to maintain their business continuity, is our priority.

Feel free to contact the most trusted and reliable Data Recovery Service Provider in the Middle East



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