RAID Data Recovery

Data Recovery from RAID 10 / Dell PowerEdge R430

Data Recovery Case

In this case study, we will delve into a remarkable data recovery achievement by PITS Global Data Recovery Services involving a Dell server's RAID array failure. The client, a pharmacy business, experienced a critical server breakdown, disrupting their operations entirely.

Emergency Response and Initial Assessment

The client experienced a critical server breakdown on a Friday. The technical information about the server, RAID configuration, and application setup was limited. The stakes were high, as the server stored essential data and applications, and the downtime could significantly impact the business operations.

Swift Action and Server Inspection

Understanding the urgency, the PITS emergency response team swiftly responded. We promptly inspected the server and diagnosed issues with BIOS corruption and the RAID Array Configuration Utility. Despite cleaning the server and applying necessary firmware updates, the server refused to boot, which complicated the recovery process.

Hard Drive Analysis

Undeterred by the challenge, the engineers methodically examined each hard drive individually. They identified multiple issues, such as head failure and bad sectors. However, our expertise enabled to recover data through hardware read retries and cleanroom recovery for the drive with head failure.

Reconstructing the RAID Array

The next step was to reconstruct the RAID 0 logical volume. Our engineers combined the drives, creating a comprehensive image of the data. Despite some recent files remaining inaccessible due to a removed RAID member, our team managed to create a near-complete reconstruction of the lost data.

Head Assembly Replacement

One critical aspect of the recovery process was the head assembly replacement performed in a certified cleanroom. This procedure allowed the remaining data to be retrieved.

Data Verification

With the complete drive images, our engineers verified the file integrity. This step was crucial in ensuring that the recovered data was not only complete but also usable.

Server Restoration

For the final step of the process, PITS used a refurbished server for restoration. The RAID Array image was cloned onto a new hard drive, and the server was booted successfully. All services operated seamlessly, indicating a successful data recovery.

Client Validation

The client verified the server's functionality and confirmed the successful data recovery. The swift and efficient data recovery allowed the pharmacy business to resume operations promptly, minimizing the potential impact of the server breakdown.

Conclusion

This case study highlights PITS Global Data Recovery Services' ability to tackle complex RAID array failures. Our systematic approach, technical expertise, and commitment to client satisfaction were key to this success.

With the expertise and professionalism of PITS, all necessary data was successfully recovered, and the server was restored within a tight 24-hour timeframe.

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Alex Ross, Chicago, IL