RAID DATA RECOVERY

SAVES OVER 28 TRILLION BYTES OF DATA FOR FUJIFILM

CLIENT

Fujifilm, a global company that began in Japan in 1934 and grew to offer consumers a variety of cameras, film, digital cameras, motion picture products, medical systems, and optical devices among other innovations.

HARDWARE

RAID 6 array with 24 disks, each with a 2TB capacity. The RAID had XFS and 70 VMWare virtual machines on it. The server model for the VMs was a 4U Digiliant Server.

CAUSE OF DATA LOSS

The array experienced a mechanical failure due to Read/Write errors found on half of the disks and printed circuit board chip soldering found on some of the drives as well. Other failures on the disks included S.M.A.R.T. errors, reallocation errors, and file system corruption and damage. The array overall experienced a multi-drive physical failure and the configuration was lost.

CLIENT RECOVERY ATTEMPTS

After contacting the drive manufacturer, the client attempted to rebuild the array with new disks to replace those that had failed.

DATA RECOVERY

The damaged disks were imaged in our Class 10 ISO 4 Cleanroom before being handed over to our developers for repair and reconstruction. The file structures were pieced together to reconstruct the original Volume Architecture. Once the drives were de-striped, the data was manually extracted using a custom utility modified for this specific case. Finally,

the User Data was manually repaired to fix the file system damage that occurred. The data was then extracted to our secure storage servers.

OUTCOME

Our experienced engineers were able to make a full recovery from the RAID that included 70 virtual machines. The amount of data recovered was 1,579 files, or over 28 trillion bytes of data. The data was returned on an external DAS drive which can be mounted via USB or eSATA.

Signature

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