Case Study

German service partner turns to Kroll Ontrack to recover data for customer facing loss of business and personal data from external RAID drives.

A marketing freelancer based in Switzerland entrusted all of their business and personal data to two RAID drives attached to their Apple Macintosh and asked their IT service partner for help when the data disappeared. The partner called on Kroll Ontrack to provide specialist engineering skills and know-how to fix the problem.

The client

A self employed marketing professional used an Apple Macintosh desktop with two backup drives to store an extensive image library, ongoing client projects and personal data including photographs.

The situation

In common with many marketing professionals, the client used an Apple Macintosh desktop to work on multiple design projects for clients, backing them up to two external RAID drives.

Both drives were attached directly to the Apple Mac but there was no mechanism in place to perform automatic backups. When one day an unidentified issue meant that the drives failed, the client believed that all of their data was lost. As a marketing freelancer, the client was under pressure to deliver design and photography jobs to their customers on time and to budget. The system failure meant that the client's entire business was at risk.

The solution

The client approached their IT service provider for help to recover the lost data and they in turn sent the job to Kroll Ontrack.

The engineering team at Kroll Ontrack evaluated the two external devices and made the surprising discovery that the second external USB device consisted of two internal hard drives.

The client, like so many small and home businesses, had taken advantage of the availability of low-cost external devices to extend the storage capability of their Apple Mac when they ran out of space. Having installed the first one terabyte drive, they implemented a special Span Set to attach the two terabyte drive – with a hidden internal stripe set inside.

No emphasis had been placed on how the external storage should be configured, how often manual backups should be made or whether a larger, dedicated storage drive with automated backups would have been preferable to a more complex RAID array setup than it appeared to be in the first run.

It wasn't immediately clear to the engineers at Kroll Ontrack what had gone wrong with the client's set-up, but since there was no physical damage to the drives the problem was most likely caused by a power failure or an issue with the cables used to connect the drives to the computer.

In any event, the complexity involved in the way in which the system was backing up data meant that while the set-up had appeared to work well for the client for a certain length of time, it was always at risk of sudden failure and data loss. While Kroll Ontrack's service partner was able to help with an initial survey of the problem drives, it did not have the specialist engineering skills and resources to rebuild the file structures and retrieve the data – and could have potentially made the situation worse.

The outcome

The engineers at Kroll Ontrack were able to rebuild and restore all of the information lost by the client: a total of 423,064 files and almost two trillion bytes of data.

The recovery was 100% successful and the drives were reconfigured correctly so that the same problem would not happen again. Some of the most common reasons for failure of backups to supply lost data are:

- The external hard drives used by the majority of companies are only connected on an occasional basis, hence backup is not automated and instead performed on demand

- The computer was not switched on during the scheduled backup nor configured to perform at a different time

- The backup software failed

- The backup ran out of destination space

- The backup profile did not cover all of the device requiring backup

- File was lost before the scheduled backup

Bonus section

Having seen so many cases of critical data loss, Kroll Ontrack recommends the following tips to ensure backup success:

- Take the time to invest in a backup solution and set up an automated backup schedule

- Ensure backups are running regularly in accordance with the determined schedule

- Check backup reports for error indications or failure

- Test backups on a regular basis to ensure data has been accurately captured and files are intact

When things do go wrong, calling a trusted data recovery provider to identify and assess your data recovery options can increase the likelihood of successfully recovering your data.