# Kroll Ontrack
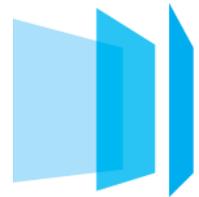
Data recovery | Data management | Electronic Evidence

**Back-up migratie of consolidatie**

# TAPE SERVICES

# Overview

- The Legacy Tape Environment

- Common Legacy Tape Scenarios

- Available Options

- Tape Service Components

- Tape Projects

- Case Studies

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# The Legacy Tape Environment

- Through 2015, disk-to-disk-to-tape (D2D2T) backup will remain the predominant strategy for large enterprises.

- By the end of 2016, 40% of large enterprises, up from 20% at year-end 2012, will have eliminated tape for operational recovery.

- Between 2012 and 2016, one-third of organizations will change backup vendors due to frustration over cost, complexity and/or capability.

- By 2016, at least 20% of large enterprises will abandon backup/recovery solutions using a traditional methodology and adopt those that employ only snapshot and replication techniques.

*Gartner, 2013*

**However, current legal, compliance and regulatory requirements have placed increased importance on legacy tapes.**

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# Common legacy tape scenarios

- **Plan to replace or upgrade** your backup infrastructure but still need to access data on the legacy backup tapes for compliance or regulatory reasons?

- **Have multiple backup infrastructures and tapes** following a merger or acquisition?

- **Need to access old tapes** but don't want to incur the cost of retaining various backup environments?

- **Need time-critical backup tape restorations** often in response to legal proceedings or demands from regulators?

- **Don't have the experience** or depth of knowledge required to deal with the legacy hardware or software?

- **Can't determine what data resides** on which tapes?

- **Unable to read backup tapes** because they've been physically damaged or the data is corrupt?

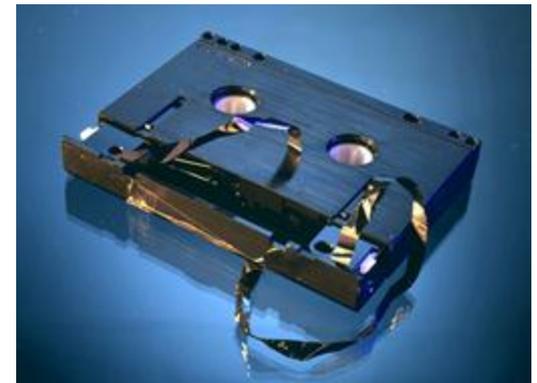Kroll Ontrack.

# Available options

1. Maintain the legacy backup software infrastructure - software licence and annual maintenance, hardware costs and retain experienced staff.

2. Use commercial software tools migrate and manage legacy tapes - incurs software licence, annual maintenance costs and resources.

3. Employ managed data services to transfer and migrate to an outsourced archiving centre - incurs costs for ingesting data and on-going hosting costs.

4. Choose tape processing services to catalogue and extract data (on demand) from the legacy backup tapes - avoids legacy backup infrastructure, company pays for only the number of tape restores they need.

5. Do nothing - don't go for any of the above and hope the company is not asked to restore any data from the legacy backup tapes.
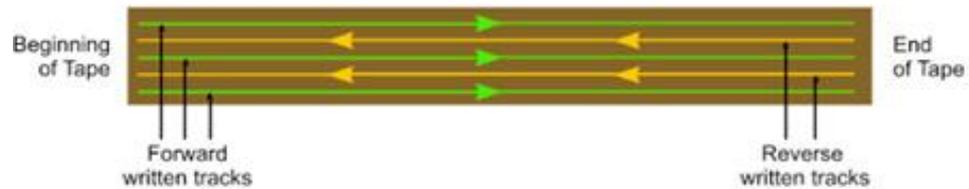
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# Tape Service Components

**Tape Cataloguing**
» Creation of tape catalogue, e.g. server, filename, date, with hosting of the catalogue if required

**Tape Extraction**
» Restoration of data from the selected tapes, with data delivered on encrypted media.

**Archive Restoration**
» Extracting email archive with data delivered as a PST on encrypted media

**Tape Duplication**
» Copy tapes independently from live systems and validate them

**Tape Data Recovery**
» Overwritten, snapped, fire or water damage, software problems or backup failures
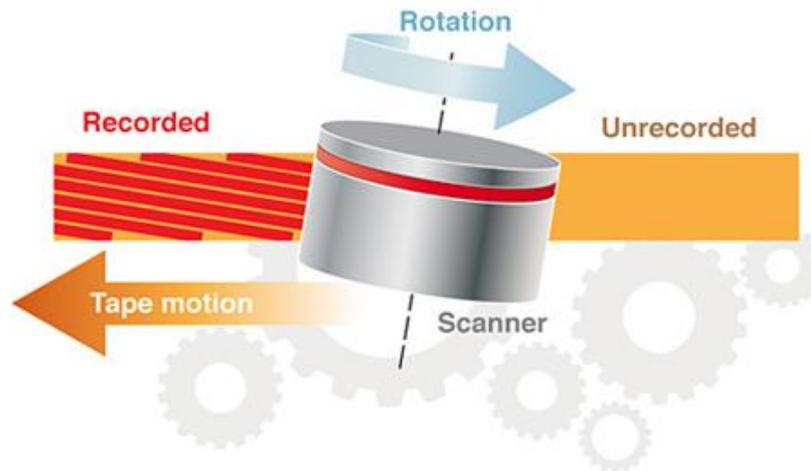
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# Data Recovery

- **Overschreven tapes**

- **Snel verwijderde of gedeeltelijk overschreven bestanden**

- **Tapes die zijn beschadigd door water, chemicaliën of dampen**

- **Gekreukte, geplooide of verbrande tapes**

- **Software problemen of back-up storingen**

- **Toevallige of opzettelijke materiële schade**

Proprietary | Kroll Ontrack
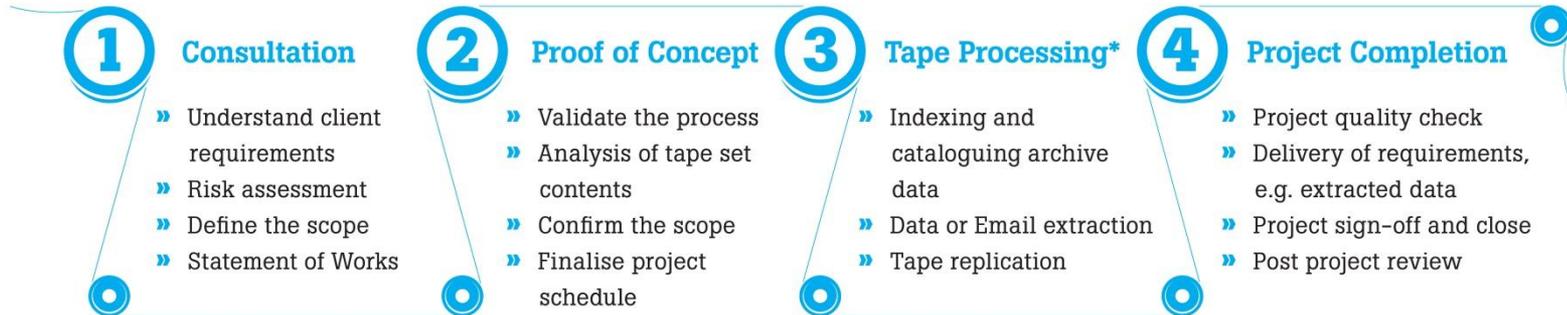
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# Some technical pictures



DLT LTO recording

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# Tape Projects

## Project Steps



**1 Consultation**
- » Understand client requirements
- » Risk assessment
- » Define the scope
- » Statement of Works

**2 Proof of Concept**
- » Validate the process
- » Analysis of tape set contents
- » Confirm the scope
- » Finalise project schedule

**3 Tape Processing***
- » Indexing and cataloguing archive data
- » Data or Email extraction
- » Tape replication

**4 Project Completion**
- » Project quality check
- » Delivery of requirements, e.g. extracted data
- » Project sign-off and close
- » Post project review

\* Dependent on client requirements.

We provide data accessibility services for a variety of backup software and tape formats as well as simple and complex conversions, including:

- » ARCserv®
- » NetBackup™
- » Backup Exec™
- » Microsoft® Backup
- » Retrospect®
- » CommVault®
- » Tapeware®

- » cpio, Tar, Dump
- » HP® Data Protector (Omniback)
- » Tivoli® TSM
- » UltraBac™
- » Legato (EMC® Networker®)
- » LTO Ultrium 1-5
- » DLT/SDLT

- » StorageTek® (9840, 9940)
- » 4 mm/8 mm
- » QIC/Mini QIC
- » 9-track tape (reel to reel)
- » IBM® Enterprise Tape Systems (3480, 3490, 3570, 3590)

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# Case Study 1

## Rapid Restore on Microsoft® Exchange™

Client: Leading, global IT services company

Requirement: As part of a larger bespoke IT project the restoration and compliant archiving of individual mailboxes was required.

Solution: Extracted and mounted the 40 EDBs contained on each of the tapes. Identified and extracted the required 2,500 mailboxes, delivered in an encrypted and compatible PST format.

Outcome: Using Verifile™ data reporting software, found and restored the required mailboxes and delivered them in encrypted and compatible PST format.

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# Case Study 2

## Reducing Archive and Restore Costs

Client: Enterprise backup/storage provider with insurance company end-customer

Requirement: Reduce maintenance costs (£500k/year) for tape restoration and extraction.

Solution: Catalogued 3,600 9940B archive tapes. Client uses the catalogue to identify and send tapes to Kroll Ontrack for ad-hoc restore.

Outcome: Kroll Ontrack delivered a cost-effective solution for the client, saving £3m over the life of the legal data retention period.

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# Case Study 3

## Accessing Legacy Backup Tapes

Client: IT service provider with insurance industry end-customer

Requirement: Access to data needed for five years to comply with regulations. Tapes created with Tivoli Storage Manager (TSM).

Solution: TSM catalogue extracted into standard database format. Client uses catalogue to identify tapes for data extraction.

Outcome: Multi-year tape service agreement tailored to client's needs, ensuring predictability in costs. Also allows for quick and efficient delivery.

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# Reference cases

## ▪ Commvault migratie

Kroll Ontrack is een specialist in data recovery en migratie en heeft ervoor gezorgd dat oude gegevens zijn gelezen van oude tapes en gemigreerd naar nieuwe tape media in de CommVault Omgeving. Dit maakt de data bestanden van de  legacy-systemen toegankelijk binnen het CommVault platform. De klant heeft zo ook de toegang tot zeer oude archief gegevens en  mogelijk beschadigde of niet meer leesbaare tapes. Na migratie zijn de oude afgedankte tapes gewist zodat onbevoegden geen toegang kunnen krijgen tot vertrouwelijke bedrijfsinformatie.

## ▪ Tivoli migratie

Technisch hoogstandje: specialisten van Kroll Ontrack ontwikkelen een nieuwe techniek voor het restoren van IBM® Tivoli® Storage Manager (TSM) data.
De nieuwe techniek maakt het recoveren van gegevens van individuele tapes van de IBM® Tivoli® Storage Manager (TSM)mogelijk. Ongeacht de TSM-versie die tijdens de back-up is gebruikt en onafhankelijk van de huidige tape back-up omgeving. Doordat er geen IBM TSM-omgeving voor het restoren, recoveren en migreren van bestanden op tape meer nodig is, kunnen beheerders de specifiek benodigde bestanden herstellen en veel tijd en kosten besparen.

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# IT services company

A leading global IT services company, providing technology enabled business solutions and services. These include systems design and integration, IT and business process outsourcing (BPO), applications software development, web and application hosting, and management and technology consulting.

As part of a larger bespoke IT project the client was facilitating for a third-party client, the identification, restoration and compliant archiving of 2,500 individual client mailboxes was required.

Although the third-party employed rigorous and tightly scheduled data backups throughout all of their global locations, their current process did not have the capabilities to specifically target legacy data and isolate the required mailboxes. As a result, the third-party client had the required 2,500 mailboxes stored across 40 tapes of multiple types, containing a total of 6,000 mailboxes.

With extensive tape restoration experience, Kroll Ontrack successfully extracted and mounted the 40 EDBs contained on the multiple tape types. The client was provided with an imaged drive outlining the 6,000 client mailboxes. Using Kroll Ontrack's unique Verifile Data Reporting software, the client identified the required 2,500 mailboxes and Kroll Ontrack then employed their advanced 'find & restore' software technology to successfully extract the required mailboxes. Kroll Ontrack delivered the required mailboxes in an encrypted and compatible PST format, ready for re-import into the third-party client's existing mail infrastructure.

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# Pharmaceuticals company

A Kroll Ontrack client, a leading pharmaceuticals company, needed data management expertise when tapes were found in a basement partially flooded by fire sprinklers. No one knew what was on the tapes and the data went back to 1996 when the company in question had not yet been acquired by the pharmaceutical company. Approximately 10% were damaged from sprinkler system contamination and then being frozen and unfrozen by a less knowledgeable data management provider.

The client shipped over 5,100 pieces of media (a variety of DLT, LTO,Exabyte, DDS, CDs and other formats) to Kroll Ontrack. Per the insurer's requirements, the job needed to be done within 6 months. Since the insurance company was funding the restoration, it was extremely interested in the amount of data being recovered from the contaminated tapes. If the data could not be recovered, the insurance company would have to finance the manual input of the data!

Ultimately,Kroll Ontrack recovered and copied the data to several 2TB disks for scanning with their IBM TSM backup software to determine if there were patents or other valuable historic information in the data.

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# Fraen Corporation

Martin Cadek Network Administrator / Systems Engineer, Fraen Corporation: "I couldn't be happier with [Ontrack PowerControls]. It has already saved us tons of time trying to restore old information from ancient tapes and as a bonus we now have a day-to-day, item-level restore feature available for our users. Prior to this we just did not have the resources to restore an entire exchange store only to extract that one lost email."

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# Meer informatie

- **http://www.ontrackdatarecovery.nl/data-conversie/**

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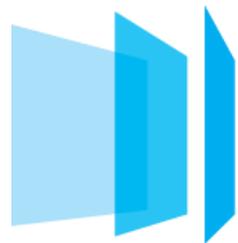
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