

Global Information  
Governance:  
Cross-border Records  
Management the  
Hard {copy} Way



Hard copy records continue to be a significant component of corporate information governance programs, particularly for global multinationals. In this case study, we demonstrate that historic challenges endemic to hard copy record maintenance — over-retention and non-defensible disposition, and the related financial and legal impacts — may have evolved to become more manageable. We start by discussing the scenario that one records management group faced, the overarching methodology used to prioritize and organize the records inventory, and then present how a technology-enabled process addressed the site-specific challenges cost-effectively.

### Introduction

Paper documents remain a staunch, if somewhat stodgy, component of many global records management inventories with fairly well understood business challenges. Paper (hard copy) is an inflexible media type that is frequently poorly indexed and organized. Such documents are often hard to find and retrieve; and typically, there is physical exertion and/or a service fee involved to locate and recover the records.

Faced with regulatory and legal requirements, many organizations find it difficult to determine whether mounds of paper documents are too important to throw away or too irrelevant to keep. These issues can grow exponentially when documents are spread across jurisdictions, especially when records decision-making lies outside of a jurisdiction.

Are there benefits to maintaining the hard copy records inventory more closely, and with more centralized transparency? Absolutely, but those benefits are often diffused across the organization and it becomes difficult to translate the benefits in a hard dollar way. Further, identifying records, indexing and performing other operations to maintain the hard copy inventory can be expensive. As a result, for many records managers, proactively gaining global records inventory control depends on reducing the cost to solve the problem; that is, aligning the expenses of hard-copy remediation with the benefits remediation provides. For many organizations, however, it is difficult to determine the mix of business process, subject matter proficiency, and technology that allows for improved management of the global hard copy inventory.

### The Setting

A multi-national company maintains operations for numerous functions (R&D, manufacturing, accounting, distribution, and sales) in different countries. The company decided to consolidate operations both within countries and across global regions. This required significant

business and personnel realignment. The Information Technology group took on the task of moving and consolidating electronic data sources (a topic for another case study). However, there was no clear vision regarding how to manage hard copy documents during the transfer consistently. This was problematic with anticipated site closings, employee separations, and general disruption. Further, regulatory mandates in many of the countries required the company to maintain certain hard copy records for tax, export controls, intellectual property, safety compliance, and other purposes.

At the outset the business had to address several questions. Where were the global sites located? What organizational moves were going to be made? How will these responses impact the records inventory moving forward? The company needed to understand the hard copy records at the appropriate level of detail to support the business decision to remediate the documents (See Figure 1). Further, the documents needed to be handled in a manner that complied with regulatory, legal, tax, and physical security requirements. Such requirements were embedded in the Records Retention and Holds schedules.

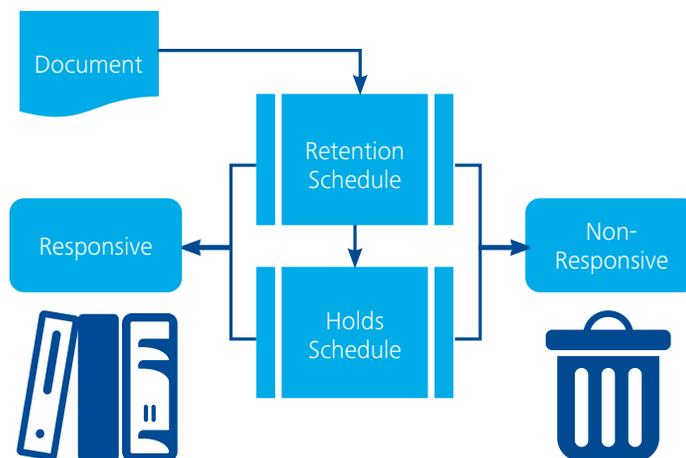


Figure 1: The Records Retention Decision Process

The records retention schedule and the legal and tax holds portfolios defined the base requirements for record remediation. In this instance, remediation included more than just keeping or destroying hard copy. It also meant providing sufficient information to the records inventory to provide for appropriate disposition going forward (i.e., year t+1, t+2, etc.). At that point, the documents could be maintained consistently with company policy.

Based on the company's analysis and prioritization, it began remediation at several global locations. An especially onerous situation emerged at a site to be closed in central Europe. The following factors affected this site:

- Records needed to be transferred from the target site to another in-country site that would remain open.
- There was minimal institutional hard copy record inventory knowledge by personnel still with the company.
- Local legislation required that companies maintain and produce specific documents on demand for the relevant tax authority in order to continue doing business in the country; therefore the document population was regarded as high risk.
- There were certain legacy data populations that needed further remediation.
- The primary hard copy document location was a warehouse with purpose-built trailers that stored tens of thousands of [predominantly] binder-enclosed documents. The trailers were compact with limited room for movement inside.
- The site itself was remote. On-site review would require human time and cost and travel time and expenses.
- The remediation occurred during the summer. In addition to general difficulty of getting to the site, the warehouse itself was very hot, which did not lend itself to a human review of the records.
- The primary language contained in the documents was English with some other European languages, languages sprinkled into certain record types.

The project team discussed the appropriate way to address this need. Hiring laborers to review the records required significant time and travel expense, in part because of the logistics required but also because of the risk of improperly categorizing documents.

The Records Retention schedule is developed and maintained to capture the retention periods of all types of records in the organization. In a global records environment, an effective retention schedule should demonstrate the following key elements:

1. Accommodates all forms of data stored by the organization
2. Provides guidance to maintain statutory and regulatory record keeping requirements, including the retention period, and who maintains ownership
3. Provides comprehensive differentiation for different country legislations, and how they affect the retention periods of each document type
4. Be maintained and updated regularly to deal with changing regulatory landscapes, and internal business requirements
5. Permit sufficient speed to identify and produce high-demand records in response to requests with potentially rapid production requirements, e.g., tax- and audit-related events

The Holds schedule is a database of existing legal holds with which an organization has a legal obligation to comply. Per U.S. federal court requirements, this would include requests that have already been specifically made pursuant to a litigation or matters for which there is a reasonable expectation for litigation. While legal holds need to be considered when working toward defensible deletion analysis, it is not always easy or obvious to implement legal holds because the scope of the hold may not be easily interpretable. Some key parameters that aid effective legal hold implementation include:

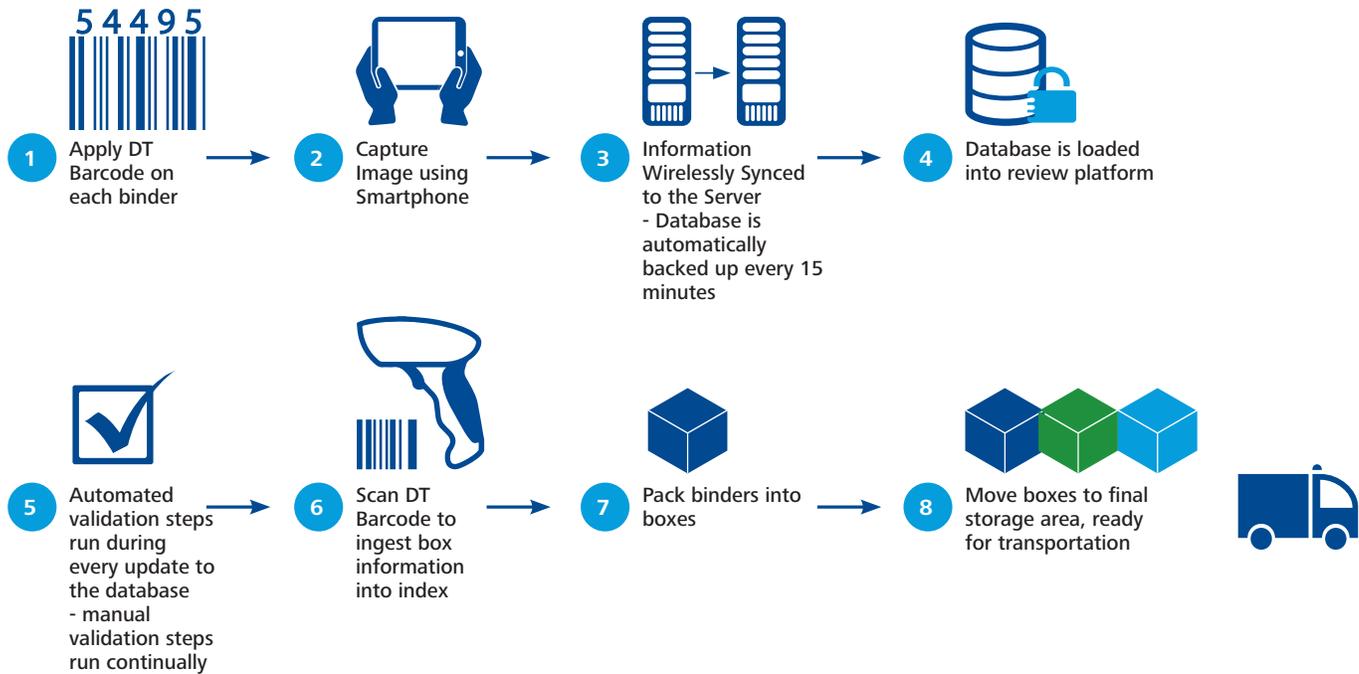
1. Custodian (person of interest) and business unit information
2. Countries or territories
3. Subject of the litigated matter
4. Records or document types of interest
5. Time frames

The project team decided to perform a two-day assessment to physically examine the document storage facility and to gather available institutional knowledge pertaining to the move. As a function of that assessment, two key features of the document store surfaced: (1) most of the binders and other documents were externally labeled reasonably well, either on binder spine or on the first page of a document packet, and (2) the location of

the binders on specific racks, shelves and in trailers was instructive to the binders' content.

With that information, the Records team helped construct a solution that addressed the majority of the documents and records that needed to be transferred, and that created a transparent records inventory at a lower cost than other available options.

### The process



**1. Index racks:** As part of the assessment, the project team developed a rack level index that contained descriptive information about the binders. The rack-level index contained information such as: department, document type, and date. The team used a coding system to map the physical shelf location into the trailers. Why was this important given other technology steps described downstream? A key benefit to bar coding is the ability to remove physical location from the tracking process. However, in this case, there was informational value relating to storage location itself. The project team documented this information to provide traceability as well as to provide information that might be instructive to downstream content determinations. Personnel at the site historically stored documents on storage racks in trailers. In many cases, knowing which trailer the binder was stored in, and which rack a binder was on, helped in determining the contents

of the binder, particularly from a record type and date perspective. For instance, customs documents from 2009 were on a set of racks in Trailer 2. In some cases the racks were specifically marked, in other cases the rack contents could be inferred from a cursory look at binders and/or documents in the rack. The project team started by creating an index that identified this rack level information, providing a basis to record the original physical location and providing information that could be used to infer the contents of the binders on each rack.

**2. Apply barcodes to each binder:** The project team created a set of customized barcode sticker labels—the barcode sequence contained the trailer number in which the binder was located. These barcode labels were applied to binder spines (and where binders weren't available, on the available document packet) using industrial barcode

applicators. The barcode number associated with each binder was unique. Binders in the trailers were sequentially labeled with one key requirement—the barcode label sticker needed to be close to any physical labeling on the binder spine. Quality control steps were also built into this process, e.g. comparing the number of barcode stickers in use to the physical count of the binders. The team also performed visual inspection to confirm sequencing and identify anomalies.

- 3. Smartphone image capture:** After indexing each binder in the population, the Deloitte team members captured images of each binder using smartphones. The capabilities of these devices allowed for instant uploading of these images onto a designated cloud drive. Saving images in the cloud permitted an offsite Deloitte team to perform routine quality control by confirming that sequence was maintained, double-checking that barcode indexes corresponded to the filename of the image, and verifying that pictures were being saved and synced correctly. The remote team could determine that pictures were being saved sequentially, that the rate at which pictures were being saved was consistent, that image barcode indexes matched file names, and that pictures were clear. When necessary, images were corrected by the offsite team members thereby reducing re-takes and limiting interruption to on-site progress.
- 4. Prepare review database:** The offsite review location was set up to increase efficiency and reduce cost. The offsite team formed the index by combining the different sources of data that had been collected. The images from the cloud were replicated into the Deloitte Discovery environment. The metadata of the captured images were organized into a compatible load file format with requisite fields, including rack-level information. This resulted in the data being processed into a review platform using standard discovery procedures which encompassed validation and quality control (QC). Within this platform, the Deloitte team OCR'd the images using a program with functionality to detect barcodes within captured images.

## TECHNOLOGY BREAKDOWN

### Barcodes

Type: Barcode labeling and relational database

Date: circa 1960's

Advantages: Remove physical proximity requirement, precise storage and retrieval

Disadvantages: Still need descriptive information with the Box #

### Smartphones

Type: Mobile image and data capture

Date: 2010s

Advantages: Mobile, light, inexpensive, ample functionality

Disadvantages: Still requires custom apps depending on workflow

### Cloud Data storage

Type: Live archiving and storage

Date: circa 2010 onwards

Advantages: Continuously archive images, and document retention index, enables immediate remote access to captured data

Disadvantages: Need internet access

### Review Database

Type: eDiscovery Review platform

Date: 2000s

Advantages: Enables volume review of captured data, images

Disadvantages: Need access to dynamic eDiscovery infrastructure

### OCR

Type: Optical character recognition of printed text

Date: 1990s

Advantages: Mass conversion of printed textual data, into structured or unstructured format.

Disadvantages: Unreliable, dependent on quality of printed text, doesn't work on handwriting.

### Image enhancement

Type: Software based image enhancement

Date: 1990s

Advantages: Remotely enhance captured images to improve readability, OCR quality, without having to re-capture image.

Disadvantages: Limits to enhance images, any amount of enhancement may not improve OCR quality.

**5. Manual review of images:** A review team comprising of contract attorneys reviewed the documents in the review platform, validated the metadata fields (including the barcode information), and matched the image of the binder label. Finally, the review team reviewed any images that had missing metadata fields. These fields were set based on the information available on the images of the binder. As seen in the example on the right, the original image on the left did not contain a clear representation of the barcode label. To fix this issue, Deloitte applied “heatmap” image enhancement to make it more clearly visible, avoiding the need for image re-take.

**6. Move binders to storage:** After the team completed the index, and after information and images for each binder had been recorded and validated, the corporation scheduled a moving date. After making all of the requisite plans, the company moved binders into boxes, which were also barcoded and indexed. The company moved these boxes successfully to their intended destinations.

**Keys to success**

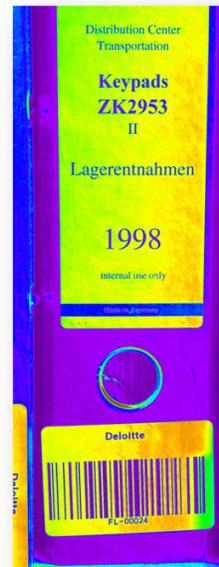
Why did this process work so well? Keys to success included:

- Performing an initial on-site assessment.
  - o Testing information already received through other information gathering channels
  - o Capturing institutional knowledge available through personnel that were still on-site
  - o Identifying cost saving opportunities, such as taking advantage of storage and labeling specifics
- Using a current country-specific records schedule containing records retention requirements by record type.
- Communicating tangible risks of records retention non-compliance in the country clearly through the organization.

Original using Smartphone



Image with “heatmap” enhancement



- Collaborating closely with the client, which provided versatility in subject matter knowledge, business process, and technology.
- Leveraging technology in several important ways:
  - Using an analytics-oriented approach to quality control and tracking—QC was primarily automated, which enabled humans to focus on exceptions
  - Performing labor-intensive processes like document review remotely. This improved efficiency and, in this instance, cut the review cost by more than half. Remote review facilitated a more stable and secure review environment, and helped to efficiently direct subject matter and language specialists to the appropriate content with less expense.

## Conclusion

This case study outlines how an innovative process was implemented to manage hard copy documents while simultaneously helping the client to meet in-country records requirements. It should be noted however, that the process described on this particular business challenge should not be applied to all hard copy records management issues. As in every situation, a discriminating business case should be developed and considered. However, given the evolution of relevant technologies, records management professionals may want to consider whether there are opportunities to improve records maintenance by incorporating technology into their processes.

Technology advancements can help overcome persistent business challenges in hard copy records, and even reinvigorate global records management programs. Consider reevaluating your record program to see if such technology trends can improve the quality of your program.

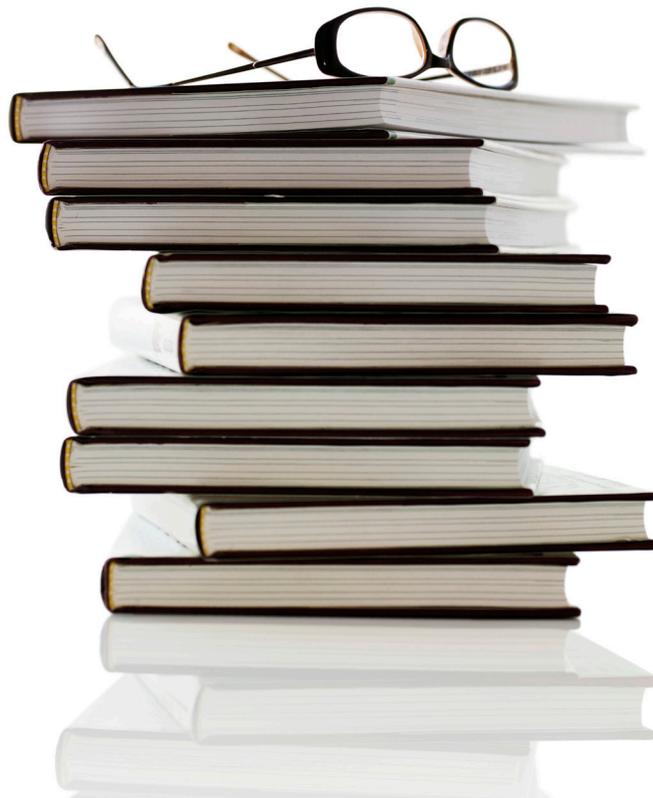
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