Digitally finding needles in a haystack: Document discovery in a corporate divestiture

Using analytics to improve global divestiture discovery management

In a corporate divestiture, identifying which records and documents go to the buyer and which stay with the seller can be an expensive process. It can even take longer than the transaction itself. The process can be incredibly more complex when the transaction involves operations in multiple countries around the world. Determining the proper home for terabytes of data and millions of physical documents can be required, with competitive, governance, and regulatory implications. The experience of a global pharmaceutical company illustrates how using analytics tools can help accelerate review and streamline management of both electronic and physical records, reducing the time and ultimately the costs involved.

Massive data, multiple languages, 13 countries
To complete the sale of a unit of a business division to another global pharmaceutical company, the selling company had to segregate the documents pertaining to the unit being sold from its entire records population. Furthermore, regulatory antitrust requirements dictated that the seller carve out a specific product line from the unit being sold and sell it to a third party. Records needed to be sorted by those relating to the product being sold, those relating to the product line going to the third party, and records unrelated to the sale. The unrelated records could include sensitive business data, such as information pertaining to intellectual property for other pharmaceutical products.

Also, some records were subject to various legal holds, requiring continuing access by both the seller and buyer. Others fell under GxP requirements, which could dictate that records not be physically moved or copied, but still be accessible by both parties to maintain traceability and regulatory compliance.

The sorting process involved an estimated 120,000 boxes of hard-copy records and some 55 terabytes of unstructured and semi-structured data housed and administered on sites in 13 countries around the globe. The selling company had to carefully separate the documents, maintain compliance with its legal hold and GxP obligations, and ensure the confidentiality of intellectual property. Further complicating the process, documents had to be handled in accordance with European Union and local country privacy regulations. And reviewers would need both scientific knowledge and fluency in the local language where the documents resided.

Divestiture records requirements

- **Multinational pharmaceutical company**
- **Purchasing pharmaceutical company**
- **Purchasing biotechnology company**
- **Business division**
- **Product line**
- **Scan**
- **Load**
- **Review**
- **Redact**

Mixed documents
Traditionally, review of such massive records volumes might involve hundreds of reviewers scouring the documents and data page by page. Or documents would undergo optical character recognition scanning and other processes to extract text. Given the data volumes involved in the pharma sale, these approaches were considered cost prohibitive and posed challenges in meeting regulatory requirements. The company needed a solution to effectively disentangle and transfer the records as required while making sure the buyers did not mistakenly receive unrelated and potentially highly sensitive information.

Advanced analytics and global resources win the day

Needing to turn voluminous data over to the buyers quickly, the company engaged with our business analytics capability. We assisted with the process of identification, separation, and transfer of all hard copy and electronic books and records globally pertaining to the sale. To accomplish this, a Discovery project team applied data analytics using a proprietary advanced analytics process to help expedite identification, classification, and decision making.

Along with identifying records to be turned over to one of the two buyers, the team’s action plan included identification and separation of records and redaction of commercially sensitive (or similar) content classified as “mixed”—content pertaining and transferring to more than one party. We used analytics to identify relevant records, with company subject matter experts verifying the accuracy of the results.

A particular challenge in the process was review of the 120,000 boxes of hard-copy records, which contained an estimated quarter-billion documents. We adapted our proprietary tool for predictive coding of electronic records to the tracking of all physical records and paper documents—a physical adaptation of the metadata concept.

The tool enabled the team to approach the physical records much the same as using predictive coding on digital data—a physical version of metadata applied through on-box barcoding and through coordination with the selling company’s storage vendors. The process established the chain of custody of every box and document—where it was located and why, where it came from, the original custodian, and the last time it was accessed, by whom, and in what department.

Review of the boxes provided the foundation for developing algorithms that would predict if a box was likely to contain mixed data or contain content relating to the divestitures. This assessment would then direct how to approach the box.

The engagement team worked with the seller’s legal department litigation group to identify and understand records subject to legal holds and GxP requirements in order to identify boxes and data needing to be preserved in some form. Throughout the process, our analytics specialists continually refined the sorting tool to sharpen its predictive accuracy.

To help address regulatory requirements and the need for language skills and scientific knowledge requirements in each country where documents were housed, we mobilized many member firms and subject matter specialists in the seller’s affected locations to conduct the review. This was especially important with respect to the hard-copy documents, as moving them to a central location would be logistically complex and costly and could violate country privacy requirements.

Successful sorting and a framework for the future

The engagement team completed its analysis of the 120,000 boxes of physical records in seven months and is continuing to work with the selling company on the analysis of electronic data. The use of analytics to determine which boxes of physical records needed investigation and which could be skipped or cursorily reviewed reduced the number of records requiring analysis by a conservative estimate of 20 percent.

In addition to these time and cost savings, the seller now has a global index of physical records, including old records inherited in prior acquisitions that lacked standard indexing. Also, the indexing is helping identify records that are no longer needed and can be sent off for shredding.