Adventures in Digitization

THE ELECTRONIC LAND FILES PLAYBOOK

2021
Version 1.0

Introduction

The Electronic Land Files Playbook, affectionately known as the ELF Playbook, is over three years in the making. What started as a vision for a guidebook that could help Canadian Association of Petroleum Land Administration (CAPLA) members understand the full scope and steps required to move from physical files to a digital format, is now a reality.

Every organization and land department is unique and are at different stages in their digitization journey. We understand there is not a one-size-fits-all approach when it comes to moving through the digitization process. This playbook is structured to help you choose the path the best suits your organization. Think of it as a "choose-your-own adventure."

We were in the process of developing the content for the ELF Playbook when the global COVID-19 pandemic changed how we do business – and access our files – and the completion of this guidebook became even more urgent. In a member survey, we heard relief from some whose companies have digitized files allowing virtual access. On the flip side, other respondents noted the challenge of working remotely with limited or no access to files as their company had not yet digitized.

What the pandemic has taught us is that business continuity planning has never been more critical. Putting the infrastructure and systems in place to ensure businesses can operate – and access the information they need when they need it – is essential to survive. "Someday" has arrived and the way we do things will never be quite the same again.

This playbook will be an invaluable resource for those considering or implementing a digitization plan for documents and files. It will guide you through the necessary steps and best practices — making the transition to digital as seamless and easy as possible, while giving you and your organization the peace of mind that you can tackle any information requirements or challenges the future may bring.

Our goal is to provide our members with an essential resource that will meet you where you are at in your digitization journey — helping you navigate the various stages required to bring your organization into the digital world, where accessing information is seamless, regardless of your location.

Thank you to our ELF committee members who have spent countless hours developing this content, and also our deepest appreciation to ACCESS for partnering with us to make this vision a reality.

Enjoy your digitization adventure,

Mike Flynn

Executive Director,
CAPLA

Click to jump directly to that page!

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"The Experts"

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OR

CRITICAL POINT

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END

You made it. Congrats!

Take a few minutes to Learn about the authors.

How it works

Digitization is unique for every organization. This game board represents the different steps and stages along the way. Different choices or options will impact your next step — much like choosing your own adventure.

Simply click on the **primary step** that best represents where your organization is today and you will jump to that section within the playbook.

At anytime, you can return to this game board by clicking the "home" button on the bottom left corner of your page, go to the next step, or to explore your options.

Enjoy your journey!

SECTION 1

What is the true cost of physical land file management?

Whether your organization is already on the road to digitization, or you're just beginning to build a business case for making the transition from paper land files to a digitized solution, knowing the true cost of your existing system is the best place to start.

Asking the right questions early on will ensure your organization realizes benefits that save dollars and make good sense. Section one will walk through various cost considerations related to keeping and working with physical land files. The statistical information you gather will help you build a business case that won't easily be shredded.

This section will help illustrate the best path to gaining on your bottom line and realizing improvements in areas that aren't as easily quantified, such as workplace satisfaction.

Phila Says

Already know the internal costs of your physical file management system?
Jump to Stage 3 to see how that data will help in getting three competitive vendor quotes.

WHAT WILL WE GAIN FROM MOVING TO DIGITAL LAND FILES?

PHYSICAL	vs	DIGITAL
Lost and misfiled documents		Robust search functions
Large physical storage space requirements and costs		Terabytes on a secure server network that is comparatively inexpensive
Labour-intensive and costly filing and retrieval processes		Fast retrieval, re-filing and enhanced work processes improve productivity
Document disposal costs		Expedited document disposal procedure

WHAT'S OUR BEST PATH TOWARD CALCULATING COSTS?

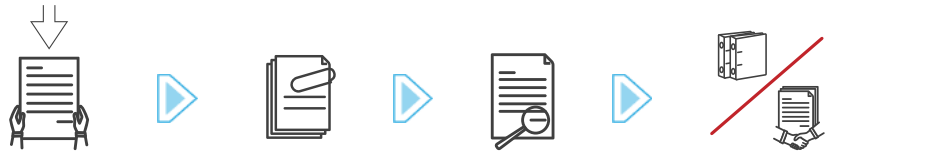
Using a document's lifecycle stages to illustrate key cost considerations, we'll highlight the various financial, legal, technical and change management components that apply to each stage.

WATCH FOR TIPS FROM OUR EXPERTS!

STAGE 1 Capture

In the file digitization process, to capture a document means taking the document from paper form to digital form. For the purposes of calculating the costs of managing physical land files, we'll focus on the preparation required to manage a new paper file at your office.

PHYSICAL FILE PROCESS



Receipt of physical documents → *Creation of physical file* → *Creation of tracking record in system* → *Circulate out to business owner or place on shelf*

When documents are in physical printed form, there are costs associated with that such as file folders, labels and the labour to create and store the file. Files also need to be documented to prove origination date, assigned a file label and so on. The organization may also have to make copies of the document or print them for wider team distribution, which again incurs the cost of ink, paper and staff time.

Calculating filing costs

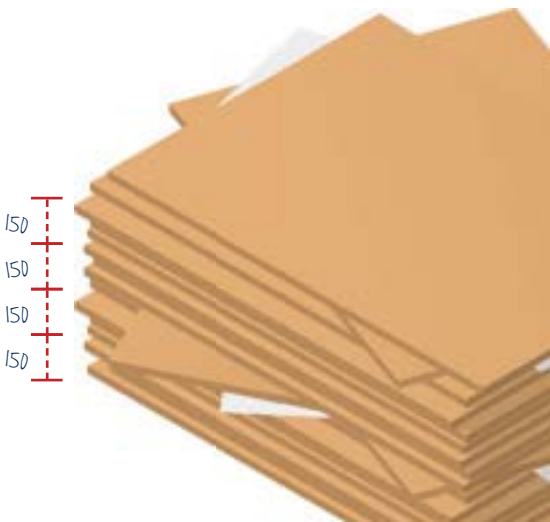
Use the formula below to calculate your costs

PHYSICAL STATE **VS** **HYBRID STATE**

total new physical files created and acquired annually (average % growth)		**total supply costs** (folders, labels, time to set-up)		**total average capture costs**
	X	$	=	$ 0.00

As you move from physical to hybrid states, track your progress to compare cost savings over the long term by running this formula at regular intervals during your digital documentation process *e.g. monthly or quarterly.*

Calculate the labour costs associated with setting up a new paper file. Ask staff to track "filing inches." **There are approximately 150 pages in a Linear Filing Inch (LFI).**



RETURN TO GAMEBOARD

STAGE 2 Store

The cost of physically storing files can be considerable, especially if your organization is not diligently managing the disposition stage of the file management cycle. As physical storage needs grow, so do the annual storage costs.

The amount of physical space required to hold document files can be significant in terms of square footage. How might your office better use the space now containing large filing drawers and shelving? In offsite storage situations, there are costs associated with accessing the files such as the labour for the request and retrieval process, plus the hard costs of document delivery.

File security is another important factor to consider with physical file storage. Is the onsite file room open to everyone? If it is, are visitors to the room tracked in the event a document goes missing? Lost productivity and wasted time tracking files, or costs to repurchase hard copy files from vendors all hurt your bottom line.

When you begin the digital conversion process, consider print on demand solutions rather than storing every portion of a physical document file.

For example: Multiple copies of a Surface Land Clearance Package (SLCP) are generated by a third party for various stakeholders because they require them at the same time. Not only are you paying for all of the copies, but eventually, these all end up coming back to the company file. Consider updating the Service Agreement with the third party to provide one digital copy to everyone and designate one recipient as responsible for submitting the "original" copy to the official digital file. This way you avoid risking the chance of storing multiple paper copies and incurring unnecessary production and storage costs.

Should the business request a paper copy, you can print a copy of the digital document in-house for X cents/page (you can calculate by including time, purchase of printer + paper + ink) which is less expensive compared to the option of repurchasing documents from a third party or having a digital file printed by an external vendor.

If you have a paper record it will always be considered the source of truth. Do not image just a portion – it is either a "yes" or "no" at the file level. The exception being documents that have been deemed ineligible for destruction after they have been imaged. The digital copy is still the source of truth and access to the paper copy is limited to 100% transfer of interest in the related asset.

Calculating storage costs

Use the formula below to calculate your costs

Where you are in your digitization process will dictate which formulas may be most beneficial to your business case.

When your organization enters the hybrid stage, document storage costs related to growth storage will reduce. You'll initiate a legacy conversion and/or capture new documents digitally, which reduces physical storage space requirements.

PHYSICAL STATE **VS** **HYBRID STATE**

As you move from physical to hybrid states, track your progress to compare cost savings over the long term by running this formula at regular intervals during your digital documentation process *e.g. monthly or quarterly.*

ONSITE STORAGE

total onsite square feet leased to accommodate physical files stored			**total onsite lease cost** per square foot		**total onsite storage costs**
	X	$		= $	0

OFFSITE STORAGE

total offsite boxes stored containing physical files			**total storage cost** per box or cubic foot		**total offsite storage costs**
	X	$		= $	0.00

Once legacy files are converted to digital, any physical files remaining in paper form are likely inactive or accessed infrequently. Cost savings will be realized if you transfer the physical documents to offsite storage, which is often less costly than onsite storage.

STAGE 3 Access

Be aware of the Freedom of Information and **Protection of Privacy (FOIP) Act** restrictions around redact vs keep in physical format only.

Seemingly overnight the pandemic made working remotely a necessity and document accessibility moved top of mind. Physical files were temporarily inaccessible. Organizations that had begun moving to a digitized file management system had an edge. Thankfully the pandemic only caused temporary accessibility challenges, but other disaster scenarios such as flood or fire could mean permanent data loss.

When it is business as usual, we must consider the everyday costs of accessing physical files. Hard and soft costs associated with requesting, retrieving and returning physical files add up. Active files are also much more easily shared electronically with colleagues and clients compared to the laborious task of printing, packaging and shipping large file packages.

Valuable time saved by a digitized system of retrieval and re-filing could mean significant savings. You may find that less staff is required thereby reducing wage costs, or you may decide to redirect their time to expanding the scope of your program or executing value-add project work.

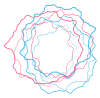
Conduct a staff survey to discover which files were missed most during the pandemic lockdown period. Those should be the focus of your digitization strategy. Other surveys could include tracking the number of physical files missing and lost.

Calculating access costs

Use the formula below to calculate your costs

The financial cost of file access from physical file rooms can be calculated using this formula:

(Labour cost + delivery cost) x (number of document retrieval + returns)



PHYSICAL STATE

VS

HYBRID STATE

As you move from physical to hybrid states, track your progress to compare cost savings over the long term by running this formula at regular intervals during your digital documentation process *e.g. monthly or quarterly.*

total physical files circulated in/out and boxes retrieved/ returned annually		**average resource hours (x hourly wage)** to process request, deliver, update system, track down missing file + **third party service provider fee** for offsite box retrieval/return		**total average access costs**
	X	**$**	**=**	**$** 0.00

STAGE 4

Maintain

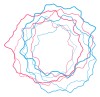
During the file maintenance phase, data integrity is a key driver. Where did the file originate? Who's made revisions? Is the retrieved version the most up to date? Staff and clients must trust the integrity of the data.

Physical files present other challenges such as productivity limitations when only one department or office location can possess the original file. Workflow processes such as file holds are designed to ensure data integrity, but can impede file circulation. Further, the data integrity of physical files may be brought into question when collaborating teams are working with a variety of copies.

In the event of litigation, it can be very difficult to demonstrate an accurate paper trail. Physical files make it more challenging to record when paper was received, updated, or if a document was removed from a file. It is worth noting here that virtually every digital document format uses some form of **auditable metadata** that automatically tracks changes at the document level (e.g. identifying the date of file origin).

Calculating maintenance costs

Use the formula below to calculate your costs



PHYSICAL STATE **VS**  **HYBRID STATE**

As you move from physical to hybrid states, track your progress to compare cost savings over the long term by running this formula at regular intervals during your digital documentation process *e.g. monthly or quarterly.*

total files managed per staff member		**average resource hours (x hourly wage)** to file, repair and correct misfiled information per file		**total average maintenance costs**
	X	**$**	**=**	**$** 0.00

Moving to a digitized management system will reduce operational costs such as labour/resource hours over time; however, plan for software and platform upgrades as an ongoing expense.

STAGE 5

Disposal

Once a file reaches retention or is divested, disposition of files may begin. However, it is worth asking if this procedure is being executed at your organization. If not, the company will most likely be annually growing storage fee costs.

If disposition procedures are being diligently followed, there are both hard and soft costs to consider. Physical file destruction demands a great amount of labour for destruction and disposal fees, whether disposition is conducted in-house or by a third-party partner. In the case of divestiture, there are potential document reproduction costs and entitlement risks to consider.

From a legal perspective, the burden of ensuring secure shredding and transfer of documentation should be auditable. The digital environment creates impressive efficiencies in these disposal activities.

Network storage is significantly less expensive than physical storage, but a scheduled file deletion process is highly recommended for digital files too. Implementing an intentional file retention program will reduce risk and any costs associated with future record clean-up requirements.

Calculating disposal costs

Use the formula below to calculate your costs

PHYSICAL STATE **VS** **HYBRID STATE**

As you move from physical to hybrid states, track your progress to compare cost savings over the long term by running this formula at regular intervals during your digital documentation process *e.g. monthly or quarterly.*

total number of files/ boxes that meet retention, are divested or destroyed post-imaging annually		**total onsite lease cost** per square foot and total storage cost per box or cubic foot		**total average disposal costs**
	X	$	= $	0.00

Deleting digital files hosted remotely by a third party partner will free storage space and result in cost savings because storage fees are typically based on terabytes of space used.

SECTION 2

Image capture — planning the best approach

An important part of the digitization journey is to gain a clear understanding of what is required for the transformation. Often there is an assumption that keeping image capture in-house will result in notable cost savings. What are the proper resources, processes, technologies and costs related to image capture?

Whether your exploration of digitization leads to an in-house solution, third-party engagement or a combination of the two, conducting an imaging capture or capture at source pilot will ensure your path forward is strategic and your investment is sound.

Your "capture strategy" will undoubtedly be influenced by ROI opportunities such as physical space savings, improving speed, efficiency, cost, accuracy and security. You will need to prioritize based on corporate goals. The following information will serve as a checklist of considerations as you formulate an approach.

Following the document lifecycle stages we'll highlight the importance of strategic capture as it applies to each stage and provide direction for conducting an image capture pilot within a defined data set.

STAGE 1 Capture

A strong data and information management strategy is about more than simply scanning a physical document and putting it on a server. The purpose of transitioning to a digital system is centered on the ability to quickly search and retrieve relevant data so staff can work efficiently to ultimately help your business. But first, you must turn the paperwork to digital, or in other words, capture it.

Phila Says

If you're already set up and conducting your own in-house imaging, jump to capture at source

IMAGE CAPTURE

Selecting the equipment hardware and imaging software used to capture the digital files is a good place to start. There are a myriad of options on the market.

Check these organizations to learn more about minimum scan quality standards:
Canadian General Standards Board (CGSB)
International Organization for Standardization (ISO)

Image quality of all ISO related documents must be a minimum of 300DPI.

TIP 1

During your pilot trial, have staff track their time to prepare the file for scanning including removal of paper clips, staples, unfolding paper, the time to scan the pages and index the content. If retention of the physical file is necessary, track the time to reassemble the pages into the original file format (re-staple and fold pages, etc.). When it comes time to compare in-house costs to vendor costs (**jump to Section 3**), you can provide the vendor with the same file sample to get an apples-to-apples pricing comparison of staff labour costs versus vendor costs.

TIP 2

Consider the staffing resources required. The preparation, imaging and indexing work related to digitization is not the same as paper filing processes. Do your company file clerks have the required skillsets or will you need to consider additional costs associated with retraining or hiring?

TIP 3

Change management is another important consideration during your pilot. Fears of job loss and uncertainty around changing roles can create powerful resistance to your project. Take the opportunity to ease the transition by providing positive support and clear communication.

TIP 4

Often there are strict compliance considerations for image quality of digitized files. Be sure you know the minimum standards and test and record various scan settings to ensure you are meeting requirements. Compare scan quality of what you are able to achieve in-house versus that of a vendor. It is also strongly recommended that your workflow process include a quality assurance step, whether imaging is conducted in-house or with a third-party partner.

CAPTURE AT SOURCE

When the document already exists as an electronic file, the focus shifts to indexing and file naming conventions. Remember, the goal is to help users file the electronic document in a simple way that will enable the team to easily locate the information. It is recommended that you limit file format options and thereby eliminate the need to install specialized software in order to open a variety of document types.

From a cost savings perspective, capturing at source removes the need to print or image a paper copy—less paper, ink and time. In addition there is no need to pay for paper storage.

DPI: Dots per inch.
A measure of resolution of the file.

Low Resolution
Example: 72 DPI -

High Resolution
Example: 300 DPI +

USE THIS CHART TO ESTIMATE THE AMOUNT OF INVESTMENT REQUIRED BY TYPE OF PROCESS

	LOWEST COST	MEDIUM COST	HIGHEST COST
Process	capturing documents at their digital source in their native format (not printing or imaging)	imaging/scanning paper documents into a digital format	hybrid approach of digital source and imaging capture with automated staging area loads
Hardware	PC	PC, scanner	PC, scanner
Software	email (download email attachments and save)	imaging software, Adobe	imaging software, Adobe, custom loading scripts/coding

STAGE 2 Store

Choosing a safe and secure repository and a day forward digital workflow are important decisions in this process. Knowing these two details allow for proper application of standards to indexing requirements as you conduct the image capture.

Begin by evaluating your organization's tolerance for risk and cost when choosing between company-owned network storage and third-party storage solutions. Be aware of the long-term costs and the security considerations for all your options .

While automation comes at a higher cost initially, consider the long-term return on investment from gained efficiencies and data accuracy. This is especially important for sustainability and scalability. Technologies change over time and resources become more scarce, while demand/usage goes up. How can we do more with less while still ensuring that we remain compliant?

Another important consideration related to file storage is whether or not the original paper files have met retention requirements. Should they be destroyed? If not, where will the paper files be stored?

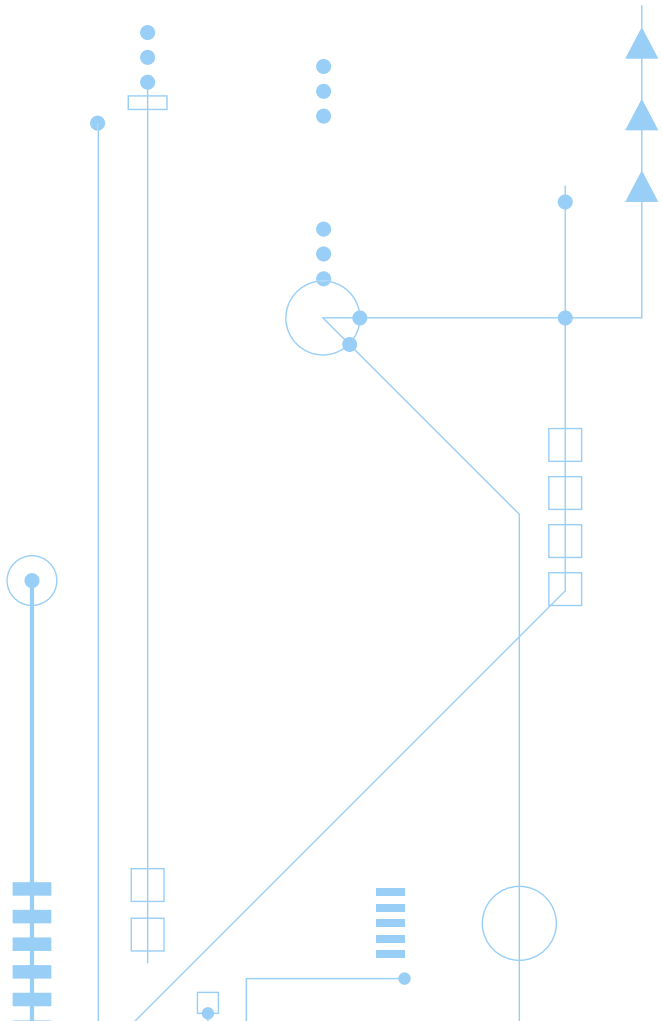
If the digital conversion process follows recommended standards, the digital version of the file becomes the source of truth allowing the paper versions to be destroyed. However, it is important to note that you must fully document the conversion process **(more about this in section 6).**

Document level storage is ideal because the name and date is very specific to the document itself. If an agreement is terminated, meets retention or is 100% divested, it can be deleted or removed from storage. Alternatively, panel level imaging bundles multiple documents into a single image resulting in a file name and date that is much more general. While panel level imaging can have significant cost savings, initially, applying a name to a group means all documents within the panel must all be stored until each of the documents' retention dates are met. The panel imaging also impacts the ability to quickly search for a specific document or locate keywords within a document.

A hybrid approach may be a good compromise when deciding on document level or panel scanning. Consider imaging any inactive, legacy or terminated files at a panel level but image active and go-forward files at a document level. Better still, capture at source so that no scanning is required at all.

USE THIS CHART TO ESTIMATE THE AMOUNT OF INVESTMENT REQUIRED BY TYPE OF PROCESS

	LOWEST COST	MEDIUM COST	HIGHEST COST
Process	manually save to your localized PC or shared drive(s)	enable folder structure to allow documents saved to inherit specific information as metadata versus manual entry	business names documents and saves to a staging area, automation loads, applies metadata and links to source system
Hardware	PC, network servers	PC, network servers	PC, network servers
Software	standard out-of-the-box office suite, compression tools to reduce or "flatten" size of larger digital documents	imaging software for managing your controlled repository, customized coding	imaging software for managing your controlled repository, even more customized coding



STAGE 3 Access

One of the greatest benefits of the digital transformation journey is the potential to significantly enhance workflow processes by improving access to information for your land department staff. Remote access, quick access, effortless refiling, fewer lost files and business continuity are included in that.

Select document control software that is easy for users and requires minimal training. While some training is likely to be required, setting users up for the best possible experience will help with adoption of the system. Ensure the software allows users to easily search, locate, retrieve and use the records in a variety of file formats.

Most digitally created documents are already imbedded with **OCR** search capability, but when transforming paper into a digital format, OCR must be intentional. This function may exist in your imaging software, or as an optional feature in Adobe if you are using a PDF format.

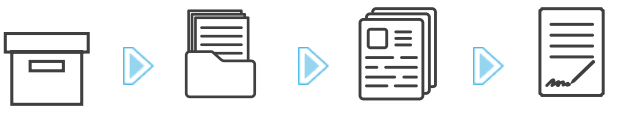
If using a photocopier to scan to PDF, be sure to enable the OCR function. It is important to note that once saved in your repository, **the only way to determine if OCR was enabled is to open each document and search the text within. If you hoped to simultaneously search across multiple documents using OCR, these documents would be missed.**

It is also important to note here that OCR capabilities have improved over the years so you may want to consider re-scanning legacy files or older documents to update with the enhanced technology. If files are old enough, they may not have been scanned using OCR at all.

Anyone with a mobile phone knows that software continually evolves and improves. If you use software, it demands that you anticipate future upgrades and possible data migrations. Limiting file formats will help to maintain access and minimize costs.

Note the importance of document tracking during the imaging process. Ensuring that the document's location is known throughout the imaging process is critical, especially if you are conducting a **day-forward conversion.** Software is available to assist with in-house conversion tracking. If the imaging will be assigned to an expert vendor, it is recommended that you ask about the document tracking or chain of custody process they will employ.

If you're conducting a **legacy file conversion,** you should consider that tracking is often done at the file level rather than the document level. The level of document file tracking is a key decision factor.



LEVEL 1 BOX **LEVEL 2 FILE** **LEVEL 3 DOCUMENT** **LEVEL 3 CONTENT**

Keep a record of how many times the newly imaged documents are accessed by staff. When you multiply the number of times a file is accessed by the cost of accessing physical records **(calculated in Section 1)**, you will have an estimated cost savings.

Phila Says **Jump back to this point in Access of section 1**

System tracked total "hits" (everytime a document was opened) multiplied by cost per one-time access fees to retrieve from storage (service fees + delivery charge + return fees)

Total documents opened		Fee to retrieve file from physical storage (service fees + delivery + return fees)		Estimated cost savings
$	X	$	=	

Consider scan-on-demand as a cost-effective file access solution. This means paper files are stored with your trusted third-party supplier. As an employee requires files, they put in a request. The vendor accesses the required file, digitizes the paper and circulates the electronic file(s) to the employee who can then work with it. The solution is a cost effective way to automate workflows and increase productivity with active files. This approach is beneficial if your funding approval will not cover a large-scale legacy paper conversion. Using a scan-on-demand approach in-house or through a service provider can be absorbed into your operational budget.

Security of your electronic files may be top of mind for many executive management teams. There is a pervasive attitude within the energy industry that physical files are more easily kept confidential and proprietary. The fact is that electronic files are very secure because you can control authorizations and track who has opened, edited and shared files.

USE THIS CHART TO ESTIMATE THE AMOUNT OF INVESTMENT REQUIRED BY TYPE OF PROCESS

	LOWEST COST	MEDIUM COST	HIGHEST COST
Process	drill-down approach through folder tree structure on shared drive, OCR text search on individual documents opened	access document repository through a link in your land system (cost varies if done manually versus automated script)	search text level (OCR), document level (metadata/doc name/map) across multiple documents at once
Hardware	PC, network servers	PC, network servers	PC, network servers
Software	standard out-of-the-box office suite	URL Links	customized imaging software

STAGE 4 Maintain

Maintaining the integrity of your business files is critical when implementing your transformation to digital. As stated earlier, a lot of imaging software choices exist. Consider the following factors when choosing:

- **When it comes to accessing digitized source-of-truth documents, your software should meet minimum compliance standards.**
- **It must be able to hold, collect and export large numbers of records including related metadata in support of legal, audit or divestiture activities.**
- **Also important is the ability to uphold quality control and integrity through ongoing future maintenance activities such as reporting, bulk updating, circulation and statistical analysis.**

To maintain impeccable process and system integrity, any changes made to your digital documents must be auditable and defensible. Documentation and training around the appropriate document updating (for example, saving changes as a version or replacing the original document with a new version) can provide context can provide context to system generated evidence of who altered a specific document and when.

USE THIS CHART TO ESTIMATE THE AMOUNT OF INVESTMENT REQUIRED BY TYPE OF PROCESS

	LOWEST COST	MEDIUM COST	HIGHEST COST
Process	manually version, re-name, edit and delete documents on your shared drive one at a time	implement a rule that only "final state" documents are to be submitted to repository, manually edit/version fewer documents	allow all documents into your repository, create customized tools that allow for actions on multiple documents at once
Hardware	PC, network servers	PC, network servers	PC, network servers
Software	standard out-of-the-box office suite	standard out-of-the-box office suite	imaging software for managing your controlled repository, custom reports/tools

STAGE 5 Dispose

Very often in the digitization process, once the physical document is imaged and becomes an electronic file, it becomes the company's official record and the original paper version can be destroyed. Disposition of the document can happen if all compliance and regulatory retention requirements are met, but it is important to keep a record of your past and current imaging software settings. This demonstrates the integrity of your capture process.

Final destruction of files will result in cost savings due to the reduction in physical storage requirements. However, do not forget to factor in the cost of destruction, whether it is done in-house (labour costs, equipment purchase and disposal fees), or managed by a vendor.

Before any files are destroyed, it is important to complete these two steps:

1. Secure a formal decision from management and/or your legal department regarding record destruction. With approval to destroy the physical files, the practice of sending files offsite for storage can be discontinued and cost savings realized.
2. Ensure that the quality and integrity of the scanned documents are audited prior to destroying the original paper. It is critical that the electronic versions of all documents meet minimum resolution and quality standards.

If using system metadata or reporting tools, leverage the document date to help automate reporting of destruction schedules. If your budget doesn't allow for such robust use of metadata, you can use your document naming convention to help identify which documents have reached their retention limit.

USE THIS CHART TO ESTIMATE THE AMOUNT OF INVESTMENT REQUIRED BY TYPE OF PROCESS

	LOWEST COST	MEDIUM COST	HIGHEST COST
Process	delete digital documents from repository post-close or once they have met required retention period	delete digital documents from repository post-close or once they have met required retention period	destroy paper documents once they have met required retention period
Hardware	PC, network servers	PC, network server, external hard drive and/or USB sticks for transfer	PC
Software	FTP site, hosted website, SharePoint Online/QuickShare (part of MS Office Suite)	standard out-of-the-box office suite	standard out-of-the-box office suite for creating transmittals; ability to update your file inventory tracking system

SECTION 3

How to compare vendor pricing against internal costs

This section will help to enhance your **RFI** or **RFP** and prompt vendors to respond with information and answers to allow for effective pricing comparisons against your internal imaging costs. Armed with this information, your organization can then decide if it will keep the imaging process in-house, outsource it or proceed with a combined solution.

Comparing apples to apples isn't always easy when you're speaking with multiple vendors. Each will bring unique service benefits and approaches to the project. Your best decisions will be informed by clear and direct communication about the services you need and your expectations for service based on value propositions that rank highest for your organization such as cost, quality, support, security, risk tolerance, user experience, and so on.

Five often overlooked costs related to imaging

In-house imaging expenses:

1. **Technical requirements such as hardware, software and licensing**
2. **Internal staff training and development of resources**
3. **Time required to "scrub" files prior to imaging**

Outsource imaging expenses:

4. **Organization's time to train vendor on applicable internal processes, metadata, naming conventions, etc.**
5. **Time to oversee quality control checks on performance of the selected vendor**

Research vendors experienced with land files. Contact peers and colleagues in the industry and ask for recommendations.

Consider these questions in your RFI / RFP document submitted to vendors:

- [ ] **COMPETENCY**
  Experience with land imaging, examples of other clients/ references.
- [ ] **CAPACITY**
  Total images monthly/ annually, how quick can they ramp-up?
- [ ] **COMPLIANCE**
  Do they understand what that entails, can they demonstrate?
- [ ] **TECHNICAL**
  Capable of colour, OCR, oversize, external environment data transfer, what data sources accepted **e.g.:**
  paper vs onion paper;
  pdf/"blobs" vs doc/.xls;
  letter/legal vs irregular sizes.
- [ ] **COST**
  Digital invoicing, volume/ early pay discounts, hidden charges/ change requests.

STAGE 1 Capture

Cost comparison considerations at the capture stage are perhaps the most in-depth of all the lifecycle phases. Thanks to the pilot test from **section 2**, you will have a good idea of the in-house time and cost requirements at the capture stage. It is worth noting here that these costs are likely to be ongoing and require long-term investment for things such as hardware/equipment, software licenses, a dedicated space and staff training/labour.

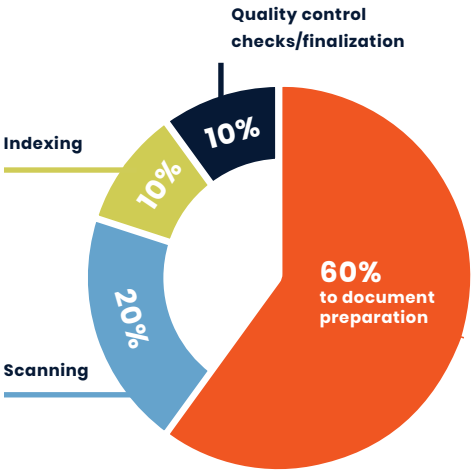
Preparation of documents for scanning is an important part of the digitization process.

Ensure that your executive management team fully understands the in-house resources required for image scanning even when utilizing a third party.

Ask vendors for a scan cost per page including document preparation, scanning, indexing, image clean-up, file checks, etc. This price will help greatly with your cost comparisons. The total number of files translated into total average number of pages to image = your rate.

Ask vendors whether they will charge any file storage fees during the project.

TYPICAL PERCENTAGE BREAKDOWN OF SCAN COSTS



COST SAVER

Oversized document imaging such as surveys may be priced separately; try to first obtain a digital source file.

Physical documents will need to be transported to the vendor's site for scanning. Consider what security measures will be implemented during transit (e.g. chain of custody) and once the documents arrive at their facility. Also, know where your documents are going because some vendors may subcontract scanning services or conduct their scans at a facility location in another city. What challenges might that create for your organization?

Scanning of documents will require adherence to minimal regulatory standards and compliance. Ensure your vendor is provided with clearly defined technical aspects such as OCR resolution, metadata, indexing and other technical details. It is advisable to ask for scan samples that show a range of materials, including both straightforward and more challenging items.

You've heard the adage, do you want it good, fast and cheap, then pick two. Working with a digitization expert will allow you a valuable opportunity to obtain advice from their experience and to make decisions that fit best with your organization and the managing style of your executive team.

Often decisions come down to cost. However, if risk is the primary decision driver, then you will require more time because quality checks will be more and the error rate less. More time usually equates to better quality but higher costs.

If speed is the primary driver, volume becomes the key metric and perhaps you will elect to adjust your error rate threshold accordingly to help achieve the volume you require to meet a specific timeline requirement.

Select an external service partner with the experience and expertise to help you weigh these factors and land on a solution that works best for your situation.

STAGE 2 Store

Once the files are digitized, there are data security questions to consider related to storage. It's important to understand where the digitized files will be stored—where is the server located, and what are the back-up and data recovery systems?

In addition, what assurances of confidentiality will the vendor provide for all imaged content? And, what protocols are in place to protect the data prior to transfer?

If you're having the digitized content moved to your organization's internal environment, how will the transfer happen? It can often involve a secure FTP site, and possibly encryption. Agree upon a set period of time that the vendor will retain a copy of the file documents in the event images are lost, corrupted or go missing during transfer, or to meet your quality threshold.

Engage your legal department and information management team SME(s) to ensure the process meets all your internal retention requirements and policies.

STAGE 3 Access

Enhanced access to information is one of the most important reasons that you are taking the digitization journey.

ACCESS DURING SCANNING

If you outsource imaging, your files travel to the vendor's facility. Ensure you fully understand the information retrieval process should an urgent request be necessary. What will the costs be for urgent file retrieval?

POST-SCAN ACCESS

Once the files are digitized, who is responsible for the costs to make the scanned materials available for all users? What are the fees related to the document management software—is it a purchase or license agreement? How intuitive is the information management software? What level of user training is required?

STAGE 4 Maintain

In the context of the digital transformation process, we will shift our focus from the maintenance of the document to that of the digitization process itself. How will your vendor continue to support your organization?

Can the selected partner deliver any value-added services such as optimizing your document workflow and internal processes? Is the vendor able to assist with change management processes and employee training?

If you elect to keep this phase of the project in-house, who will be responsible and what are the costs aligned with ongoing training and development? The organization will require equipment and software, new hires or retrained staff, setting up the facility space and so on. It is also recommended that costs for these items be budgeted as an ongoing expenditure.

Does the vendor understand the unique technical and size requirements of land files as well as the quality-assurance (e.g. image resolution standards) for many of the files? Can proof of legal compliance be presented? What is the liability coverage?

What equipment or software is needed for proper quality control monitoring?

Include a question on your RFI/RFP asking for examples of prices that may not be all-inclusive.

STAGE 5 Disposal

There are three very important questions to ask at the disposal stage of the document lifecycle during the imaging process.

1. **What happens to the original paper file after it is digitized?**

   The options are typically paper destruction if all compliance requirements are met. However, is there a required holding period? If so, where will it be stored or shipped back to you for final quality control checks? What are the associated costs?

2. **What happens to the digital file once retention requirements are met?**

   What is the procedure and protocol for destruction of electronic files? Is there any proof or certificate of destruction provided?

3. **How will ISO/CSGB compliance be met?**

Whether you opt to manage the digitization in-house now, or in the future, or go through a vendor, it is the legal responsibility of your organization to ensure you can demonstrate the integrity of processes and systems. Proving compliance in the future will require that each stage of your digitization process is documented. This includes what software and hardware were used, all specifications and settings.

- Is there a chain of custody?
- What sort of technology is used to track the paper?
- Will certificates of destruction be provided? How will the quality assurance checks be managed?

A WORD ABOUT COMPLIANCE

Consider also how both the digital and paper files will be returned to your organization. Is your organization responsible for picking them up? Will they come by courier or a commercial shipping company? What are the fees?

Ensure a strong knowledge transfer or training plan is in place to maintain consistent adherence to documentation processes throughout every step of the digitization journey. This will minimize the impact resulting from process changes throughout the project.

SECTION 4

Presenting a strong business case

A business case can generate support for your program of digitizing files in the land department. An effective case will outline the benefits, costs and risks of alternative options, and justify the recommended solution.

A well-constructed business case will demonstrate how information management system improvements will result in cost savings to the organization, support decision-making and provide points by which to track performance.

It is likely that the people to whom you'll present your business case are not experts in the area of information management. Gaining approval for funding and resources to support your program will require clear communication of the cost impacts and savings to the bottom line.

Begin conversations with senior management and colleagues and you'll quickly understand risk perceptions. This is a valuable step to inform your business case.

FOUR STEPS OF A BUSINESS CASE

STEP 1	STEP 2	STEP 3	STEP 4
IDENTIFY BUSINESS NEED	OUTLINE SOLUTION OPTIONS	RECOMMEND A PREFERRED SOLUTION	PRESENT THE IMPLEMENTATION PLAN

STEP 1

Identify the business need

The first step towards creating a strong business case is to identify the business needs driving the transition to digital imaging. Where are the strongest cost-saving opportunities to ensure your organization remains competitive?

POTENTIAL BUSINESS NEEDS

Measurable

- Reduce physical file space requirements and associated costs*
  **This assumes only the digital version will be retained and immediate disposal after digitization.*
- Decrease labour and material costs related to file management/retrieval
- Improve employee satisfaction related to improved workflows

Intangible

- Lower risk related to disaster recovery and compliance issues
- Lessen the risk of not accessing the master version
- Prevent data loss, file corruption and storage duplication through building a single source of truth
- Improve collaboration and productivity
- Increase information retrieval and responsiveness

Thanks to their measurability, hard costs are relatively easy to illustrate. When presenting the soft cost benefits, incorporate real-life examples to support your position and explain why they are important.

EXAMPLE 1

Documentation is required to prevent a regulatory fine -- locating a specific document or legacy file is much faster if it exists in digital format, and can save costs by reducing the need to redo work related to a missing or lost file.

EXAMPLE 2

Natural disaster such as a flood or a pandemic outbreak – impacts to productivity will be minimized if digitized records are available online and can be accessed remotely.

EXAMPLE 3

An acquisition & divestiture clause in a purchase & sale agreement states a specific deadline for transfer of records – the ability to transfer documents securely online improves turnaround time and simplifies the process leading to less stress on staff.

Initiate an early discussion with senior management and your legal department around the matter of eventual paper destruction. Maintaining digital-only versions significantly improves your ROI. Keeping both a paper and digital copy not only reinforces the notion that paper is the default "original", but also requires double the labour and budget to maintain the system. It is also proven to be unsustainable over the long term and diminishes your opportunity to improve workflow processes.

STEP 2

Outline solution options

The research and information collected during the defined set pilot **(section 2)** and through the vendor responses **(section 3)** will be especially helpful in analyzing the optional solutions. Present the costs of the current file management system and compare to the alternate solutions to show costs savings. Be transparent about all costs associated with the various solutions. There are one-time costs of shredding and box removal, and ongoing costs such as software and equipment updates to consider.

A culture shift may be required in some organizations. Planning for the potential challenges and opportunities that change brings is worth careful consideration in your business case. It may be necessary to change the mindset of file ownership from personal to corporate. The benefits of sharing single source files for team collaboration opens a new way of doing business with strengthened teamwork and increased productivity.

Phila Says

Review section 2 related to running a defined set pilot.

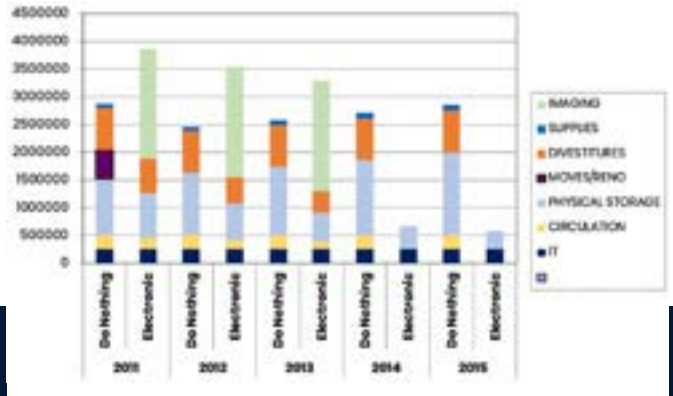
Jump back to section 3 and refresh yourself on the vendor responses from RFI/RFPs

STEP 3

Recommend your preferred solution

Thorough analysis of solution options is critical to support your rationalization for the preferred recommendation. Show how the solution is meeting the business need. How will it impact the bottom line? How will it affect how people work? How does it add security and lower risk for the organization?

Illustrating the initial investment versus remaining status quo versus going digital = ROI timeline.



In the example above, the ROI for imaging begins in Year 4 and then remains flat as a sustainable go-forward solution is implemented.

Phila Says

For a review of hard cost formulas and comparisons related to your existing system, jump back to section 1 — calculating the costs of physical file management.

STEP 4

Present the implementation plan

Costs and resource allocation associated with administering your recommended solution could be significant, especially if you are moving from a file management system that currently doesn't include any form of digitization. Content to include in your project plan may include:

Budget

How much will your recommended solution cost?

Resource allocation

Who will do what? Will existing staff need to be reassigned and trained? Will you need to hire? What is the required hardware and software support?

Schedule

What is the estimated timing of the implementation? Will it happen in phases?

Monitoring/communication

How will everyone be kept informed throughout the process? How will progress be monitored? How will success be measured?

Securing company-wide buy in for the new information management model starts with gaining executive commitment to show support from the top down.

An integrated plan will assist with the implementation stage. Bring all the right people into the conversation as early as you can to ensure costs and benefits are examined from the perspective of each department's needs. For example, discuss eventual paper destruction with senior management and the legal department to learn if certain processes, documentation and approvals are required.

SUGGESTED APPROVAL ITEMS

In addition to requesting approval for funding, there are other key commitments your executive team can provide before the imaging project starts to ensure smooth implementation of the plan.

- Receive approval that paper will be destroyed after scanning
- Confirm the criteria for determining which content will be prioritized for imaging

SECTION 5

Implementing the process

GETTING DOWN TO BUSINESS

Successful implementation of your document management system means conducting a careful audit of your existing workflows and procedures. Simply adding technology to a less-than-perfect business process won't achieve the desired results such as reduced costs, improved productivity and increased security.

ENGAGE, LEARN, REPEAT

Communication is a major component of a successful implementation process. In section 4, we pointed to the importance of getting early stakeholder buy-in. When implementing an electronic management system, it is key to ensure staff is advised of the coming change and that they understand the "why" behind the decision. There may be some level of resistance to taking the digital journey with worries that efficiency improvements may result in job loss, while others may simply struggle with change.

Designing a strong change management approach will help to educate users about "what's in it for them" and it will go a long way to securing support and building realistic expectations. This step, in conjunction with a strong training program and ongoing support and encouragement, will maximize potential for a successful implementation.

Engage your communications and human resources departments to help craft messages that will educate, train and support staff throughout the change process. Take advantage of internal communication tools at your disposal such as intranet, newsletters or lunch and learns.

PILOT

THE PILOT TEST

It is recommended that you consider a pilot test within a defined record set before proceeding with the full implementation. The pilot will help test the technology of your electronic management system and allow you to strengthen all implementation strategy plans, including procedures, workflows and proving your business plan.

Phila Says

Review section 2 related to running a defined set pilot.

Valuable questions to ask as you're progressing through the pilot:

- Is the new workflow process intuitive? Are staff buying in and using the new process?
- Is the training sufficient?
- Did users experience productivity improvements (or other success measurements that were identified at the outset)?
- Is the new system aligning with key performance indicators identified in your business case?
- Are further process changes required?

Phila Says

In section 4, we touched upon the implementation stage and outlined four steps to include in your business case.

Following our lifecycle stages of a document, we will highlight some items to consider throughout your implementation process. The items will include areas such as financial/budget considerations, resource allocation/change management, legal/policy/compliance and monitoring for proof of performance.

STAGE 1

Capture

During your planning stage, you will have identified the paper files that should be digitized, whether you've elected to conduct the imaging in-house or through a third-party partner. In the context of implementing the transformation to digitization, moving the process towards electronic file creation is crucial to eventually migrating from a physical file system.

Here are some tips to stimulate the creation of master original documents during the capture stage:

- Set a firm date when the creation of physical files will end
- Update all service agreements with partners/vendors to ensure all "paperwork" is provided to your organization in digital format
- Know that the chain of custody is much easier to prove in native files than it is using imaged files
- You should not be able to distinguish between digitally imaged documents and those captured at source

STAGE 2

Store

During the implementation pilot program, storage may apply to both physical and electronic files. To save costs, you may consider moving files that are rarely accessed to a less expensive offsite storage area.

With a goal to transition all information to a digital format, consider treating all file formats (for example, raw data and emails) as digital records. There's no need to complicate the process. Simplicity is the best choice when it comes to file formats.

Managers may appreciate when employees feel ownership for a project, but when we're journeying through a digital transformation it pays to shift attitudes away from "my records" and begin to see files as corporate assets.

Enhance the company culture by encouraging file sharing and collaboration. Help the team see beyond their own immediate needs and realize the greater responsibility towards asking, "Who else may need this information/work in the future and how can I ensure they can easily retrieve it?"

STAGE 3

Access

Just as people are considered a corporate asset, your organizational content holds great value as well. Ensure that you've established appropriate security levels and policies for managing and controlling access to the information. However, try to strike a comfortable balance between security controls and improvements to access that will bolster productivity and even enhance workplace satisfaction.

From an efficiency perspective, consider establishing permission levels for groups of users rather than for each individual. A best practice tip is to appoint a representative for each business group who will be responsible to add or delete users as required.

Fast and easy retrieval of information relevant to an employee's role is one of the greatest benefits of digital transformation. Several workflow process improvements can be considered and tested at the implementation stage that will save costs and improve productivity. Keeping the workflow simple is important, but even the most ingenious workflow process is only as good as the training to follow it. Staff training is essential to successful implementation.

Investigate using digital forms or apps to help automate the document request process and speed up efficiency. Your third-party imaging partner may already have this timesaving and security-enhancing feature available through their online software. Another feature that enhances file searches is to enable at the text (OCR), document (metadata) and file (naming conventions) levels.

STAGE 4

Maintain

As mentioned earlier in this document, maintaining data integrity is one of the most important factors to consider in your file maintenance system. During the pilot period, be open to monitoring and measuring to ensure the new process is working well and achieving the desired results. Also start to gauge if the process is sustainable and scalable over the long term. For instance, as the volume of content grows, it may be most efficient to develop utilities or tools to manage mass updates. For example, terminated contracts could be scheduled for quarterly or annual updating from the system.

In addition, it bears repeating that the potential benefits of thorough staff training cannot be overstated. Ensure that your budget allows for training staff to properly manage the digital files and maintain data integrity.

In the training, clearly define the differences between deleting, replacing or updating versions. Using the international date standard for file naming YYYY-MM-DD may be helpful.

STAGE 5 Dispose

The disposal portion of your implementation pilot should be centred on the document retention policies and executive level approval of when a file may be permanently destroyed, whether deleting a digital file or shredding a paper document.

Ensuring disposition procedures are clearly understood and that classification/retention is applied as metadata at the document level will help with compliance, and eventually downsizing the physical storage files and managing the terabytes required for your digital storage.

We've all experienced the anxious sensation when deleting a file and the program asks, "Are you sure you want to permanently delete?" Successful change management is most critical at the disposition phase to help allay fears and concerns around record destruction. Storing records in a digital format is easy and many may reason that it's best to retain files "just in case."

Reduce internal resistance to disposition by helping the team better understand the process and the importance of destruction timing.

When considering physical record disposition, fears can be mitigated if people are aware that there is a period following imaging where the paper copies are kept to ensure any risks or issues are identified. For example, in the case of divestiture knowing that digital copies will be retained for an agreed upon time following the close can ease concerns.

SECTION 6

Meet compliance requirements to mitigate risk

Whether you opt to manage the digitization in-house or through a vendor, awareness and understanding of matters relating to compliance is essential to mitigate risk. In land asset management, meeting compliance standards will help avoid the cost implications of fines, the need to repurchase documents or the breach of contractual obligations.

Before beginning the digitization journey, it is recommended to consult your legal department on the regulatory requirements that may apply to your documents, records and data. Then plan a comprehensive process of documentation including maintaining files and records of not only software and hardware used, but all the specifications and settings. **The chain of custody process** is also important during the digitization process as tracking the original paper file throughout the entire digitization journey proves integrity of the electronic file.

All of this information is important in the event of a future audit or divestiture. It is your professional responsibility that the integrity of the processes and systems can be demonstrated.

Three levels of compliance

Planning ranges from mandatory requirements to suggested best practices. Your organization's level of risk tolerance will ultimately drive the approach taken.

LEVEL 1 Regulatory/legal

Legislation, regulations and policies of government departments and agencies prescribe minimum standards for electronic records to qualify digital copies as a source of truth. The procedures, policies and systems of an organization must satisfy these legal standards. Achieving this standard permits an organization to consider its internal policy about destroying the original paper copy. Issues to consider include having to interpret functional equivalency rules for each document type by a cautious legal community and needing ongoing review to ensure current compliance with applicable statutes, regulations and policies of government departments and agencies.

Canadian Federal legislative examples include:

- Electronic Evidence Act
- Personal Information Protection and Electronic Documents Act (PIPEDA)
- Electronic Transactions Act
- Canada Evidence Act
- Uniform Electronic Commerce Act
- Income Tax Act
- Canada Business Corporations Act (CBCA)

Legislative examples across jurisdictions may vary, but generally include enactments concerning:

- electronic documents
- privacy
- land titles
- law of property
- oil and gas conservation or energy conservation
- surface rights management
- business corporations or companies
- partnerships
- personal property registration

Electronic Evidence Act: Metadata capturing date/time received.

Personal Information Protection and Electronic Documents Act (PIPEDA): Both federal and provincial legislation consider electronic documents to have the same legal status as paper. Note that in statutes and regulations, "record" is a broad term that includes what you may call a "document."

Electronic Transactions Act (Alberta): Electronic documents can be used as replacements for hard copies if there is a reliable assurance as to the integrity of the information in the record (s.14). The integrity of an electronic document depends largely on the security of the system it is stored in, and the ability of others to access and use the information.

Electronic documents can replace originals if there is "a reliable assurance as to the integrity of the information in the record." The statute specifies that electronic documents satisfy any legal requirement where (i) a document must be in writing (s.11), (ii) originals must be retained (s. 14.1), and (iii) that an original document must be provided to another party (s.14.2 & 3).

Records that create or transfer interests in land, including mines and minerals (s.7.1) and title documents (s.7.2) create some ambiguous exceptions that require use of paper documents. For example, in Alberta, an amendment to the Land Titles Act in 2015 recognizes electronic records as equal to paper records. However, implementation of this provision requires use of Alberta's ALTO online system. Currently, only lawyers and land surveyors can be licensed to use ALTO.

Canada Evidence Act: The "best evidence" rule is satisfied by an electronic record when there is proof of integrity of the electronic records system in which that record is stored.

*Section 2, subsection 31(1) defines a "secure electronic signature" as an electronic document where a digital signature results from the completion of several consecutive operations (not listed here). Section 3 stipulates that a valid digital signature certificate must be present. Note the difference between digital signatures (use asymmetric key cryptography) versus electronic signatures (vulnerable to forgery). In many cases, electronic signatures are not legally binding.

Uniform Electronic Commerce Act:

- information shall not be denied legal effect or enforceability solely because it is in an electronic form
- process of applying digital signatures does not diminish the validity of the contract/agreement
- an electronic document will be equivalent to the original document
- where there is a legal requirement for the original to be provided, retained or examined, an electronic document will be acceptable if the integrity of the information has been maintained
- electronic signatures will satisfy a legal requirement for written signature

Income Tax Act: CRA acknowledges that electronic versions of paper documents are records within the meaning of the Act if they are kept in "an acceptable imaging program."

Canada Business Corporations Act (CBCA):

- suggests that electronic records are permissible, provided that the records can be easily retrieved from the electronic system
- Section 12 - 20.2.1 is the only legislation that provides a specific retention period: six years for accounting records after the end of the financial year to which the records relate; do not need to retain original agreement once it is terminated.

LEVEL 2

Standards, guidelines and best practices

General standards, guidelines and best practices are developed by several organizations. However, no "industry" standard exists for Land. Being aware of published recommendations may inform making the best decisions for an organization. Published recommendations attempt to be compliant with current enactments but should be subject to legal review before developing internal practices.

Examples include:

- Canadian General Standards Board (CGSB)
- International Organization for Standardization (ISO)
- American National Standards Institute (ANSI)
- The Association for Intelligent Information Management (AIIM)

LEVEL 3

Internal company practice/ procedures

When considering "level 3" guidelines, you should research all the legislative and industry best practices to formulate your organization's interpretation of what is expected to meet system and process integrity standards so that electronic documents are reliable, defensible and auditable.

A level 3 internal compliance policy is influenced by an organization's perceived risks. It guides employees and/or third-party partners about how the digitization is done and rules concerning quality expectations, paper disposition and so on.

Chain of custody process planning

The chain of custody is essentially a process by which documents being digitized, either in-house or by a third-party partner, are tracked to ensure the integrity of both the original and electronic document.

A chain of custody audit trail should be designed before your digitization journey begins. Ask yourself these questions:

- Who will have authority to oversee the sending and receiving of the documents/records/files?
- How will the documents/records/files be transported and what security measures are required?
- How will the electronic versions be transferred back?
- How are FOIP requirements satisfied, if any apply?
- Is there a need for confidentiality agreements for staff or vendors?

A digitized record is only valuable to your organization if it is reliable, defensible, maintains integrity and is an accurate version of the source record/document.

STAGE 1 Capture

Research and understand if the organization is obligated to satisfy image quality standards for digitization. Know the minimum standards and then test and record various scan settings to ensure necessary requirements are being satisfied. It's critical to maintain appropriate staff training, meticulous recordkeeping and ongoing quality checks throughout the entire electronic documentation process.

When engaging a vendor, confirm a mutual understanding of what it means to be compliant.

STAGE 2 Store

Properly documenting your digitization journey will result in many logs, certificates and procedures. It may be a requirement of your legal advisors to house this "proof of integrity" for at least as long as you are in possession of the documents (physical and/or electronic document formats).

Following a fully compliant digitization process will lessen risks and potentially improve an organization's return on investment. The labour and material costs needed to manage both paper and digital documentation will increase short-term general and administrative costs. However, working with your legal advisors to confirm approval that image capture permits destruction of originals will help reduce the ongoing cost of paper storage.

Also, by working to build a clear and strong understanding of the compliance process among employees and executive, you will successfully shift how people begin to think about physical files versus digital. Following a transparent process that highlights the importance of compliance will enhance faith in data integrity. The goal is to help staff recognize electronic files as the master versions and see all physical documents outside the electronic repository as copies only.

The technical backup and recovery protocols for your data are unique to each organization but having a disaster recovery protocol or business continuity plan will leave your digital data better protected. In comparison, consider one set of paper records stored at one location and the susceptibility to environmental or access issues.

When planning your digital security protocols consider frequency and format of data backup. Location of the remote servers and networks may also be an important consideration as some international laws may apply.

STAGE 3

Access

Allowing the right people access to the proper files when they need them is a large and important part of embarking on the digitization journey. The documentation for software selected should assist the organization to maintain compliant data.

With the right software, permissions can be set at multiple levels for all file functions including access, edit, move, copy and delete. It is important that permissions and security settings be documented so they are auditable and reportable.

The software will also allow users to search, locate, retrieve and use records in various formats. Auditing, tracking and reporting capacity details also need to be included in your documentation. The software should enable multiple users access to business-designated and system-generated metadata until it is deleted from the repository. Retention-related metadata including dates must be captured and reportable.

The ability to have your documentation software support how your organization maintains compliance protocol is powerful. It is key to set up clear processes and provide effective training for staff to follow policies and maximize the system features.

Get your HR department involved by incorporating the process directly in the onboarding package for new staff.

STAGE 4 Maintain

As the digitization journey progresses, it is important to schedule regular reviews and updates of the documentation to ensure it remains up to date. Documenting integrity requires continuous updating, maintenance, reporting, and even statistical analysis.

It is also important to keep in mind that try as you may to create a perfect process that anticipates every scenario, there will be times when process exceptions are needed. It is important that the "how" and "why" of these changes are documented to convey intent and improve integrity.

System metadata is usually captured automatically and may help to provide a reliable source of audit information to confirm and prove document authenticity/ compliance. Examples of metadata include create/capture date, creator name, security permissions and access audit logs. Other predetermined system metadata can be customized to reflect your organization such as classification and retention codes. Ensure the appointed system administrator has the necessary authority to review and produce this information.

STAGE 5 Dispose

Your legal department will be helpful in identifying compliance and policies regarding which documents can and cannot be destroyed throughout the digitization process. In many instances, once the physical document is imaged and becomes an electronic file following a compliant process, it becomes the company's official record, and the original paper version can be destroyed. The general exception will be freehold petroleum and natural gas leases. These concern an interest in land and it is not settled at law that any statute overcomes the Statue of Frauds as to interests in land.

Any physical documents that must be retained may be secured by the organization and access restricted.

SECTION 7

Enhance and expand to take advantage of future opportunities

Now that you've worked through the preceding chapters, it's time to think about a final critical planning element before starting out on the digitization journey. This final step requires looking beyond the present to consider possible future data needs of your company.

Reflect back on the reasons that inspired your first steps on the digital journey. Was it increased efficiency, heightened data security, mitigated risk, enriched compliance, improved bottom line, enhanced competitive edge? Whatever the motivation, it was most likely driven by an existing and present need.

But while it's important to consider how your organization may change and evolve in the future, it's equally valuable to understand how technologies and document management platforms are progressing. Implementing a scalable system takes your strategy to the next level and further reinforces return on investment.

Using improved access as our example, do you want to digitize your records simply for convenient access, or would you eventually like to enable any of the following?

- Simultaneous remote access by multiple users
- Improved information sharing between land and other departments
- Advanced text level searches across large data sets
- Integration of digital documents with source data using links within the land system
- Data analytics through the extraction of digital content from a document
- Digital workflows using evolving platforms (e.g. blockchain) to complete smart contracts

It's difficult to argue that any one of these doesn't provide your organization with a competitive advantage by recognizing **unstructured data** as an asset. To maximize your investment, it is essential that the digital transformation program developed for today is adaptable to the anticipated information formats and platforms of tomorrow.

It is not inconceivable that once the extraction of data from unstructured sources becomes a more prevalent practice, the appetite for paper records and even digital documents may slowly be replaced by pure data as the source of truth.

With this will come the realization that it is the content and not the format that most matters. How that content is accessed and leveraged for the maximum benefit of your organization begins with removing the restraints of traditional barriers--both real and perceived.

The roadmap to your digital transformation requires the correct combination of decisions, processes and technologies be applied through every stage of the document lifecycle.

Adventures in Digitization

CONCLUSION

Many industry experts came together to collaborate on the development of this playbook. It is our hope that you find it an invaluable resource as you plan, pitch, pilot test and ultimately implement a strategy for digitizing documents and files at your organization.

No two organizations are the same. Each has its own priorities and driving influences that will direct the path forward. The reality of budgets, timelines, the status quo, risk tolerances and so on may mean the digital transformation journey is not always a fast-moving bump-free ride, but the benefits realized are sure to make it a worthwhile endeavour.

In the previous pages, we've guided you through the steps needed to build a strong roadmap to follow and achieve a successful electronic land file plan. Our goal is to inform and educate so that you and your team are armed with the information you need to ask good questions and maybe even highlight aspects you may not have thought to consider. Whether you decide to engage an expert partner or go it alone, we wish you the best success in your journey.

If you have any questions about the information contained in this playbook, you are invited to contact: info@caplacanada.org.

If you wish to speak with document management experts, our contributing partners at Access are available for a complimentary, no-obligation consultation. Just mention the playbook and a representative will be happy to discuss your specific questions.

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CAPLA

In Canada, land administration professionals working in the energy industry are represented by the Canadian Association of Petroleum Land Administration (CAPLA®). Based in Calgary, Alberta, CAPLA is one of the largest oil and gas membership associations in the country with ~800 members. CAPLA provides a Code of Conduct, ethics training, education seminars, workshops and courses, an annual conference, leadership development, mentoring opportunities, a job bank, and a busy calendar of networking events. For more information, please visit **https://caplacanada.org.**

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