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CASE STUDY: MIGRATING A BILLION-DOLLAR GOVERNMENT AGENCY TO A NEW RECORDS SYSTEM

CONTENTS

Introduction[1]

Organizations are increasingly rolling out electronic records and content management initiatives in an environment where compliance requirements constantly evolve. For example, organizations must comply with fast-changing regulations such as the EU's General Data Protection Regulation (GDPR), Canada's Anti-Spam Law (CASL), the Digital Privacy Act, and other world-wide privacy and data policies.

There is also an increasing amount of unstructured data that executives and information management professionals are concerned with. In a recent survey to records and information management professionals, when asked "which of the following represent the top records management challenges for your organization," the number one response, at 40%, was "the volume of unmanaged digital documents outside of RIM control."[2] File shares, ungoverned collaboration work spaces, mobile devices, and the growing volume of content in software-as-a-service (SaaS) applications are proliferating.

Yet despite the growing importance of compliance and managing information, about 50% of Electronic Content Management (ECM) Projects fail[3].

ECM projects fail for different reasons. In our experience, we see failures most commonly due to legacy technology that is not supported, lack of leadership, lack of adoption due to a poor user experience, or a poor rollout process such as a 'big bang' approach.

This article takes an in-depth look at a successful ECM project with a provincial government agency and details how that project was rolled out over a period of 18 months. This case study covers:

- How to comply with government standards and schedules for digital applications
- How to engage leadership and department end-users in an incremental rollout
- How to migrate large volumes of content, including unstructured content

Detailed in this article are best practices and learnings to help inform your next ECM project.

Context

In 2018, a BC provincial government agency embarked on a journey to adopt a new Electronic Document and Records Management System (EDRMS). For privacy reasons, we cannot directly name the agency. This section describes the context of the organization, the challenges with the existing EDRMS, and the legislative backdrop in the province.

About the Provincial Agency and Project Team

This public-sector agency has a workforce of several hundred employees in their head office, and thousands of part-time and full-time staff across the province. They generate a net income of over $1 billion CAD. The primary users of the EDRMS are approximately 800 people spread across 50 departments at the head office.

The agency project team for the EDRMS consisted of IT team members, records manager, project manager, and a partner for implementation.

Information Management at the Agency

The provincial agency had a ten-year old legacy records management system. The system was experiencing system performance issues due to the growth of its database over the years. It was manually maintained by a records manager who identified content as records and archived content periodically.

Further, the building that hosted the records management servers was sold and the servers were scheduled to move. A significant risk was that the application may become inoperable during that move. The existing software that the records management solution was built on was no longer supported by the vendor, and as such, the path to recovery in the event of a failure was unclear and represented a major risk to ongoing operations.

In order to mitigate the risk of the impact on the agency's operations should the records management application fail, the agency decided to move forward with the implementation of a new EDRMS.

Legislative Context

The BC government and public agencies are mandated to classify information under a legislative framework called the **Information Management Act** (IMA). The IMA applies to all ministries, to courts in a limited way, and to designated public sector organizations. The IMA requires public sector organizations to hold, transfer, archive and dispose of information in accordance with an information and classification schedule.

Two key classification schedules are: The Administrative Records Classification System (ARCS) and the Operational Records Classification Systems (ORCS). The ORCS and ARCS information schedule is the file plan for the for BC Provincial Government. The goals of the ORCS and ARCS information schedule are to:

- Ensure records are kept for as long as required
- Identify records of enduring value for preservation
- Ensure that others are routinely destroyed when they are no longer needed

For this project, all records had to follow the ORCS and ARCS information schedules including retention and disposition.

Project Goals

The leadership at the public agency wanted a system that would work across all departments, meet legal requirements, and was easy-to-use by employees.

The project objective was to replace the legacy system with a reliable solution that:

- Improves overall customer satisfaction through effective collaboration
- Reduces organizational compliance risk
- Increases confidence in a trusted single-source-of-truth for documents
- Increases productivity through enhanced search, retrieval, and performance
- Complies with the Information Management Act

Solution Overview

The vision for the new EDRMS is for staff to create, collaborate on, and maintain documents and other content while records management lifecycle needs are addressed via rules configured behind-the-scenes. The EDRMS ensures records compliance as any content required to follow the Information Management Act will be managed in the records solution.

Critical features of the EDRMS included:

- A "single source of truth" for all major business and support operations with robust version control and content quality
- A consistent, standardized user experience for collaboration across all business units
- Easy search, retrieval, collaboration, and management and ability to add metadata to content
- Behind-the-scenes automated records management
- Full audit and forensic capabilities
- Hosted on-premises to comply with Canadian government cloud technology regulation

Physical and Digital Records Strategic Approach

The solution was designed so that all records, including physical and digital records, are managed in the EDRMS. The strategy to manage these types of records followed a Classic File Plan approach with a collaborative window for digital files.

Classic File Plans

Classic file plans, born out of paper records management, typically contain two stages and then a disposition action:

- Active – the stage that the records provide value to the business or would likely be referenced by the business. As an example, in the paper world, a binder of invoices might live on someone's desk for two years at which point the record would enter the semi-active stage.

- Semi-Active – the stage after the Active window that is the remainder of time for the retention policy. Following the above example, after two years, invoices would be archived in a different location (in a box in the basement, or at an off-site location). This time frame can be driven by regulatory compliance, business requirements, historical value, etc.

- Disposition Action – the action that happens after the Semi-Active stage is complete. It could be one of Destroy, Archive, and Transfer or Make Permanent – depending on the compliance need. For the invoices example, they could be destroyed after 7 years when they are no longer needed for tax records or other purposes.
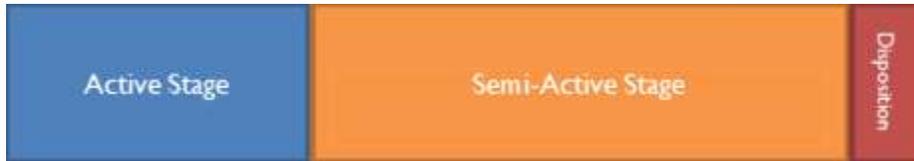
Figure 1: Classic File Plan Stages

Adding a Collaborative Window

The classic file plan model works for paper records. Paper is inherently immutable because it can't be easily changed. In other words, paper enters this process after it is finalized.

Moreover, the classic model assumes that the document is finalized and is missing the period that end-users work on the document. We refer to this period as the Collaboration Window. Systems that follow the classic model do not consider how users collaborate on content before it is finalized and assume that end-users will classify and declare records.

Industry best practices have long recommended that a solution should capture records without disrupting the way end-users work[4]. The solution needs to auto-classify content against the file plan and automatically declare records.

Our updated model includes a Collaboration Window that happens before declaration and automatically calculates the declaration schedule.

Figure 2: File Plan Stages for Digital Environments

Calculating Declaration

If documents are declared before an end-user feels like they have had the chance to complete the document, they may not want to use the system, leading to poor adoption. If it takes too long to declare a document as a record, then the organization is at risk. For example, if signed contracts are not declared immediately in a records management system, this could lead to accidental deletion of critical files and no easy way to recover.

For this project, the team decided to calculate declaration automatically, and not rely on end-users to act first. Based on experience, the project team chose three main methods for declaration:

- **Immediate**: Some documents such as finalized policies, signed contracts, etc. are candidates for immediate declaration. These documents are declared the moment they are added to the EDRMS. However sometimes end-users make mistakes around metadata - for example, when selecting a department. We followed a rule

that the "immediate declaration" provides a 2-3 business day grace period for end-users to modify the document and metadata.

- **Time-Based:** Auto declaration of other content happens based on the amount of time that has passed since a certain date. These dates could be: 1) Created date – the date that the document was created, 2) Modified Date – the date that the document was last modified, 3) Custom Date Field – any date field that is being used in the system such as Contract Date, Project End Date. Modified Date was the preferred model in most cases, because if the user is still editing the document, then it should not be declared as a record.
- **Event-Based:** The EDRMS supports tying declaration to an event. A common event that triggered declaration was changing the document status of a document from "draft" to "final." Other trigger events included when project files were marked as Closed or a project reached its end date.

Lessons Learned from Adapting File Plans for Digital Use[5]

A challenge in applying ARCS and ORCS classification schedules is that they were developed for managing physical records, and don't always easily apply in a digital environment.

Of note is the use of *SO* that the ARCS and ORCS User Guide defines as "Explains when a file designated SO should be closed." In most file plans SO stands for *supersede* or *obsolete* – meaning that the file retention is calculated based on content being replaced by a newer version (to supersede) or simply when they are no longer relevant (have been made obsolete).

For example, if a corporate policy for overtime is updated, then the previous version of that policy is superseded and may, for example, need to be kept for seven more years before running through a destruction process. Organizations need to keep old versions, especially in legal situations. For example, if an organization is being sued by a former employee for overtime from three years ago, then they need to know what the official overtime policy was back in 2017.

Looking at ORCS and ARCS, many of the record categories have a retention schedule driven by SO. For example, many of the record categories that fall under "6820 - Information Systems Operations" implement a SO type retention schedule as seen below:

Figure 3: ORCS AND ARCS FILE PLAN SCREEN CAPTURE FROM FEB 14, 2019

Each area of the records categories in the ORCS and ARCS file plan that leverages SO will define what SO means. For example, for "*6450-80 - IT application/system documentation - final versions",* defines SO as

> *upon completion of the post-implementation review, or when the project is abandoned, and when no longer required for reference.*

The problem here is that SO typically implies that the end-user needs to step in and act – essentially telling the system that a given document is no longer useful. If the file plan was implemented as-is, the agency needs to manually flag millions of documents over time. This is not the most efficient way of running documents through a disposition process.

Instead, the process was automated. We worked with the government agency to determine the longest period content is relevant for a given record category. For example, *6820-06 Log files* which include application, server, web site, system, audit, event, and equivalent logs define SO to mean "when no longer required." The organization determined that the IT-related log files would not typically be required after three years.

Instead of requiring that end-users go back into all the log files and flag them as SO, a disposition approval process is automatically kicked off on log files after three years whereby the end-user can opt to save the log files for an additional two years, or can run them through a disposition workflow.

One of the benefits of the EDRMS is the flexibility of the retention workflows. They allow multiple paths through the workflow. In this case we can allow end-users to flag documents as SO (as unlikely as that is) but also automatically kick off a disposition approval process after a reasonable amount of time.

We learned that this is a good compromise that helps automate the compliance process and minimizes the burden of the end-user, while staying within the spirit and intent of the ORCS and ARCS file plan.

Below is a screenshot of an example retention workflow that:

- Waits for one year after the last modified date (to provide an adequate collaboration window)
- Deletes the version history of the document
- Declares the item to be a record
- Waits for the item to be flagged as superseded or obsolete OR automatically pushes forward after five years and then depending on the path out will run through a given approval process before being destroyed by the EDRMS.
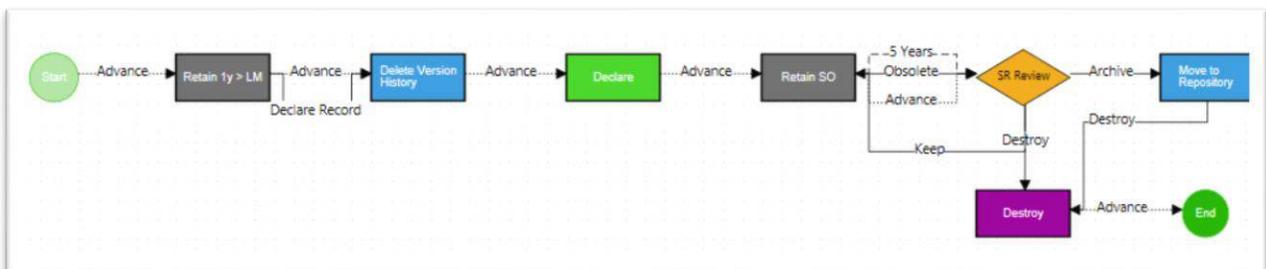
Figure 4: ORCS AND ARCS FILE PLAN WORKFLOW

Record Managers have an important role to play in applying file plans to digital records systems. It cannot be understated – when migrating to a new EDRMS, it's critical that Record Managers have an in-depth knowledge of the file plan so that they can translate the schedules to digital environments.

Another consideration for records managers is to determine how much flexibility departments have in asking for specific workflows for their content. In the early days of this project, pilot groups could have small variances in workflows. For example, one department retains project files for three years, and another for four years. This degrades performance of the solution as content rules continue to run in the background for a growing volume of content. In future work with departments, we reduced the volume of similar workflows. As much as possible, we recommend keeping workflows consistent across departments, and only have exceptions in rare cases. This results in better performance of the solution and easier maintenance for record managers.

After building these workflows, we calculated that the automated destruction of over 2.5 million documents over the next 7 years, saves over three thousand of hours of effort for the organization!

Project Management Process

Large scale ECM projects are inherently difficult to manage. Often, critical business leaders need to reschedule or place the project on hold. In the meantime, other initiatives within the organization reach out for assistance with a clear need for an ECM solution, but can't proceed because fundamental solution decisions are not complete. This project followed a lightweight and agile methodology to onboard departments incrementally when schedules permitted.

Lightweight and Agile Methodology

This project did not follow a traditional large-scale implementation approach where work is done for months in the lead-up to a 'big bang' deployment.

Given this dynamic nature of large-scale ECM projects, we find it best to follow light and agile methodologies. We recommend a version of Scrum, which is defined as "a flexible, holistic product development strategy where a development team works as a unit to reach a common goal[6]." It challenges assumptions of the "traditional, sequential approach" to product development, and enables teams to self-organize by encouraging physical co-location or close online collaboration of all team members, as well as daily face-to-face communication among all team members and disciplines involved. Scrum is an iterative and incremental agile software development framework for managing product development, which works well for large-scale ECM projects that have a large degree of unknowns.

This methodology led to a pilot approach where a few departments and processes are chosen and implemented first, and later other departments and processes are on-boarded in a phased manner. In this way, lessons learned were incorporated as the project proceeded.

Pilot Group Rollout Process

A key decision during the EDRMS initiative was to plan how to sequence work with five initial pilot groups. All groups were scored on a risk scale based on size, complexity of content, capacity to engage and ability. Based on that ranking, the project started with the least risky groups and worked through to more risky groups. The riskier groups tended to involve more people, have more complex content, and have less team availability and capacity to engage.

The benefits of working this way are:

- The project team becomes more capable over time
- For riskier teams, there will be more pre-made solutions previously developed
- Success stories will have time to influence riskier groups

Each pilot group followed implementation activities as shown in Figure 5.

Figure 5: Implementation Approach Per Department

At a high-level, these were the key activities at each stage:

1. Current State Assessment: The goal of this step is to understand the department, how they work, where they work, who they work with, and any issues or pain points. This is captured in a session with department representatives.

2. Requirements: In the requirements phase, the most important requirements are determined and prioritized. These are documented for each pilot department to refer to.

3. Content Discovery: Current content for the department is listed and prioritized in a spreadsheet. This was limited to active content in network file storage, desktops, and other file sharing systems.

4. Card Sorting and Mind Mapping: This a visual, collaborative activity with department end-users to identify sections in the new information architecture. This collaborative process is recommended because it helps people get involved with design, have a say, and own it in the end.

5. Prototype and Review: Create a prototype with key sections for review and feedback from end-users. This prototype is adapted based on the feedback.

6. UAT and Migration Planning: Based on the volume and type of content, a plan is created for migration.

7. Migration and Go Live: End-users are scheduled to manually migrate content, and scripts prepared for automated migration. After these activities, the pilot site is ready for launch.

8. Support and Reflection: After the site is live, weekly support is provided for department and a reflection meeting is held to discuss what worked well and what did not.

These activities were repeated for the 5 pilot groups and the remaining 45 departments, and any lessons from the last step were incorporated into future work as applicable.

Leadership Alignment and Involvement

During the process of rolling out the first department sites, the team observed that some sites were more successful than others. Success in this context means how happy users are with the solution, how well attended training sessions are, and how engaged department users are with the solution. In less successful sites, we noticed that users were not happy with the change in how their documents were managed.

In discussions of digital transformation best practices, a common best practice is that leadership involvement is critical to the success of the project. For example, Harvard Business Review[7] identified leadership misalignment as a fundamental reason for digital transformation failure because:

> *"If top managers aren't on the same page, it makes it difficult for their direct reports to agree on what to prioritize and how to measure progress."*

This rang true during the initial pilot rollouts at the agency as well. During the reflection sessions held at the end of a department rollout, a trend was identified: the more successful departments had leadership involvement throughout the rollout project. Leaders from the more successful departments attended meetings and worked with their direct reports to prioritize training and migration activities.

After a few less successful rollouts, the project team did a few things to ensure success for future departments:

- A check-in with leadership a few weeks before the project team started work on their department site. This check-in ensured the department still planned to prioritize time for the EDRMS, and if anything had changed, the work was scheduled for another window.

- Leadership attendance at key meetings was non-negotiable. These meetings included: kickoff, prototype review, and support and reflection to discuss what worked well and what did not. The project team found that engagement with these sessions helped leaders understand the importance of the project, effort required from their direct reports, and enabled them to make prioritization decisions in the work of the department.

Managing Status Across Pilot Groups

Working in this iterative way takes focus and diligence in tracking. As the project proceeded, we adapted the communication method to include both digital and physical communication methods.

A master Kanban board tracked progress across all departments. Kanban is a lean method from Japan to visually manage work and to give team members a view of their progress and overall process. Kanban–which is the Japanese word for "billboard"–was developed by an automobile manufacturer in the 1940s and 1950s.[8]

Typically, columns group work by stage, and rows (or swim lanes) group work by owner or another category. This government project used a Kanban board to group work by

stage and by department in swim lanes. This was in a digital form on a project collaboration site, as well as physical form in the agency's head office as shown in
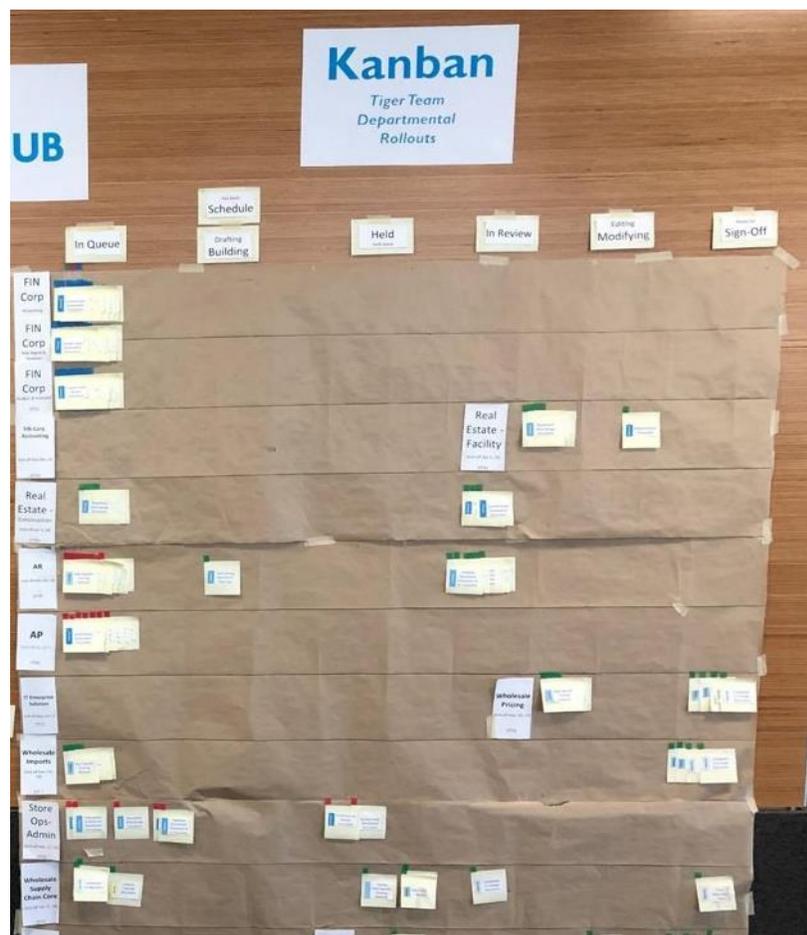
Figure 6.

Figure 6: Master Kanban board for the project

A physical board helped during the rollout process because it was always visible, and people could easily come by to see which departments are making progress. We learned that even though it takes effort to keep up to date, it has benefit during status meetings and drove a bit of 'competition' across departments. The board was in a visible area to leaders in the agency, and sparked conversations within departments if some were 'lagging.'

This model of tracking project status works especially if people are co-located together. Where this isn't possible, there are digital tools which can track work in a Kanban board.

Migration and Launch

Migration Process

Migration of the right amount of content to an information management platform in a timely manner is important for adoption and return-on-investment. If an insufficient amount of content is migrated, then we are missing out on an opportunity to drive adoption. On the other hand, migrating everything may draw too much time from the business and be cost prohibitive.

This project migrated over 4 million records over an 18-month timeframe. This was possible with a mixed model of manual migration and automated migration scripts.

The Role of Manual Migration

Although the project team had a set of scripts to help with migration, and almost all content could be migrated automatically, there are benefits to having end-users perform some of the migration manually:

- It is an opportunity to reinforce solution training and help users gain mastery of the platform
- It acts as a quality check of the new solution because end-users use it in-depth for a period of days to migrate content
- It ensures that the user experience makes sense and that end-users are comfortable with the information architecture (i.e. know where the content will be located)
- It allows end-users to provide feedback on any issues that are uncovered during migration and to have the project team solve those issues in a timely fashion

An adequate level of migrated content is needed in the system to be useful for end-users. The project team found that typically one years' worth of historical content and all high-value content are needed for successful migration. Typically, end-users within departments performed the manual migration of current content for the last year or last month.

Automated migration with scripts was leveraged for:

- Older content that was delegated immediately as a record

- Volumes of highly templated structures (employee files, vendor and supplier invoices, contracts)

As the pilot groups proceeded with migration, we prepared the next group by sharing instructions on cleaning data in advance. For example, removing duplicates and redundant content was helpful before putting effort into migration.

Migration as a Fun Activity

Manual migration can be daunting and overwhelming. The project team encouraged departments by setting up 'migration parties' for end-users within a department. These sessions had food and went a long way into making migration into something that people look forward to.

Recommendations and learnings from the migration parties included:

- Invite as many people as possible, including directors and management to the migration party. A group can make the work go faster and more people benefit from learning about the solution.
- Make live and immediate information architecture changes during the session. For example, sometimes during a migration session, end-users identified names of document libraries or views that are confusing or unclear. If a representative from the implementation team is at the session, they can make changes immediately. End-users see an immediate result from their feedback and are more encouraged to continue using the system.
- For larger content areas, anticipate that additional time may be required. The project team generally scheduled two sessions of two hours each, which was enough time for most departments. Some departments did not finish manual migration during the time allotted. For those that ran out of time, leadership helped teams commit to another session or have people complete migration on their own. Again, it is critical that leadership is involved and aware of migration progress for the additional time to be committed.

Migration can be time-consuming, but it is critical to the success of any EDRMS project. Make sure you plan for it and be creative for how to make it fun for your own teams.

Summary and What's Next

For this initiative, 4 million files were moved in an 18-month period involving about 800 users over 50 departments. As one director at the agency noted:

> *"One thing that is a big win for us is the increased effectiveness and efficiencies we have gained as a result of the project and transition. It is taking one quarter of the time to administer our documents, find files and explore the Hub."*

This is a great result for the agency who now has a reliable system. In addition, the agency gained more trust in the validity and relevance of information managed by the EDRMS through proper versioning and document control. A robust and effective search

experience supports staff in locating documents among millions of records in the system. Finally, the new EDRMS is reliable and performant, which encourages use and reduces the risk to operations from outages and frustrating performance issues.

Satisfaction with the system is being measured and has improved over time as well. Most users recommend the system to others and find it easy to learn and search. As the system grows in volume and usage, the team is monitoring performance and making changes as needed.

Author Biography

Jas Shukla is a Senior Consultant and leads marketing at Gravity Union. She has over 15 years of experience in user experience and consulting. Previously, Jas worked as a Design Lead at product and consulting firms. She started her career as a Program Manager at Microsoft on the SharePoint team.

Company and Product Descriptions

The EDRMS solution described in this article was built by Gravity Union with two core pieces of software: Microsoft SharePoint and Collabware CLM.

About Gravity Union

Gravity Union is a compliance-inspired, digital transformation consultancy that empowers organizations to take control of their critical information. Gravity Union works with organizations to plan, execute and maintain Electronic Content Management (ECM) solutions. Gravity Union's team has experience with every major information management software suite, but focuses on delivering the best tools that the market has to offer. SharePoint, Office 365, Collabware CLM and Collabspace comprise the central offering for creating digital workspaces. Gravity Union has a perfect track record implementing Electronic Document and Records Management
Systems across Canada in some of the most highly-
regulated organizations in the country, including the Government of Canada, city municipalities, and energy companies.

About Microsoft SharePoint

SharePoint is the industry's leading platform for content management, collaboration and building line-of-business applications. SharePoint provides robust features for managing documents and collaboration. For this project, key features included version control, metadata management, enterprise search and easy email drag-and-drop from Outlook. It has both on-premises and cloud options for hosting.

About Collabware CLM

Collabware CLM provides automated and fully compliant records management for SharePoint. It allows the record manger to manage the lifecycle of content in the SharePoint collaboration portal and archival sites. Collabware CLM allows for the management of the file plan, retention workflow development, security groups, case file management, disposition approval and review, auto-classification, physical records management and more.

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