



SoftPath
TECHNOLOGIES
Getting Technology Closer to Business

Automating Document Sharing Process for a Bureau of a Federal Department

Automating Document Sharing Process for a Bureau of a Federal Department

A Case Study on SoftPath Technologies' SharePoint Solution

This case study explains how SoftPath Technologies' engineering team automated the Document Sharing Process for a Bureau of a Federal Department by implementing SharePoint based Solution.



Fact Sheet

Client

Company

A Federal Department

Industry

Natural Resources

Business Unit

A Bureau under the Federal Department

Desired Objectives

- *Eliminate manual paper-based process*
- *Reduce approval times from Weeks to Days*
- *Centralized Tracking System to automate document approval process to next level*
- *Centralized Electronic Document Management System for cost effective information management*
- *Get rid of paper based work and add to organization's Green initiative*
- *Create built-in notification / escalation mechanism in the process*

Achievements

- Accelerated Document Sharing process through automated infrastructure
- Replacement of paper-based documents and at the same time maintaining the desired level of information security
- Easy-to-use IT infrastructure through Intranet Portal
- Improved executive and employee satisfaction levels

Challenges

- *High volume of historic documents*
- *Executives spent significant effort and time in protecting the sensitive information*
- *Information Silos was being created*
- *Access to Information was slow*
- *No escalation mechanism in case of delays and impediments*

SoftPath Technologies' Approach

- *Information gathering on the existing Workflow*
- *Requirements gathering on the desired Workflow and existing Security policies*
- *Implementing a Medium SharePoint Farm*
- *Implementing Custom Workflow*

Implementation Challenges

- Converting > 5 million hard copy documents to soft copies
- Cultural shift from paper-based process to online collaboration
- Security constraints on sharing information with SoftPath Technologies' team



Executive Summary

The client is a Bureau of a **Federal Department**. The client's operations come under the department's mission to protect Natural Resources and Heritage and supply the energy to power the future of the nation. There are different bureaus operating under the client, as part of its mission, with each bureau responsible for managing "one" natural resource.

The problem identified and the solution implemented, as discussed in this case study, was for one of those bureaus.

As part of their Operations, the client handles a large *Volume* of contractual documents and other sensitive information within Federal regulations. The *sensitive* documents are to be accessed by only those executives and employees who are authorized to do so. The permissions to access these documents are governed by various Federal and Operational regulations. Different departments and employees have various levels of access depending on the type of the information and sometimes the content that it carries. In certain cases, the access levels are to be implemented for individual documents, technically identified as "*item level security*", which overrules all other general security policies.

Business Challenges

The procedures of Document Sharing were completely *manual*. To protect the sensitivity of information, any document that had to be shared between the employees, *within and across the departments*, had to go through the executive levels. This led to lower operational efficiency. Given that all these documents were handled in paper-based hard copies, for sensitive and security reasons, the process created "*Information Silos*" between the employees within and across the departments resulting in bottlenecks.

The *Volume* of the documents to be maintained by the Bureau was a major challenge. The *mandatory* need of protecting the *sensitivity* of these documents added to the set of challenges. Apart from handling the new documents, the employees often had to visit the old documents and had to go through a big hassle considering the *volume* and *sensitivity* reasons.

The client turned to SoftPath Technologies in implementing a SharePoint Solution for their Document Management & Sharing and Business Collaboration process. The primary objectives of the new solution were not just to have an *Automated Solution* to expedite the document sharing process but to also have *Improved Visibility* in ensuring the security regulations were met.

The proposed Microsoft SharePoint Server intranet portal would enable users to programmatically store and disseminate information to the executive management group within and across the departments of the bureau, easily and securely, by implementing the following functionalities.

- *Single storage point and audit trails for documents*
- *Knowledge Capture and Knowledge Management*
- *Documents are **automatically** and **securely** Checked-in and Published*
- *Documents are found quickly with common desktop tools*
- *Powerful search technologies make information instantly accessible*
- *Automatic e-mail notifications sent to distribution lists (Daily's circulation) for approvals*
- *Time savings for IT & Operational teams*

Using its SharePoint professionals, SoftPath Technologies completed this project, reasonably on target, enabling the client a smoother transition.



SoftPath

TECHNOLOGIES

Getting Technology Closer to Business

Automating Document Sharing Process for a Bureau of a Federal Department

The Resolution

SoftPath Technologies' SharePoint team worked as part of an integrated team, which included pre-identified IT and Operational team members from the client side to analyze the problem thru taking this to completion. As part of the assignment, SoftPath Technologies' team had to perform on-the-job SharePoint administration & implementation, training the client's IT team and post-implementation knowledge transition to both IT and Operational teams.

Here is the high-level summary of the approach followed by SoftPath Technologies' team in implementing the desired BPM solution.

Information gathering on the existing Workflow

The information (documented and undocumented) about the business "as-is" was collected to understand the general traits of the business process.

Requirements gathering on the desired Workflow and existing Security policies

The integrated team worked on documenting the requirements on the desired Workflow, and collating and documenting the existing Security policies.

Implementing Custom Navigation with Branding

- ❖ With the nature of the problem in hand, the need was for different departments to use the application as per their specific needs which in turn demanded custom navigations built in the SharePoint solution.
- ❖ *SharePoint Branding* was extensively used in building the Custom Navigations and other Customized User Interfaces.
- ❖ The *Branding* also had to consider the department level *Security* to be implemented along with the development of dynamic dropdown menus and custom master pages for various departments.

Customized Workflow with SharePoint Designer

Using SharePoint Designer, the team developed the core part of the solution by coming up with an Automated and Customized Workflow for the client's Document Management and Business Process Collaboration needs.

Agile and Iterative Implementation

- ❖ The SharePoint solution was developed and rolled out in phases enabling the team to progressively work towards fine-grained requirements.
- ❖ Timely feedback from the IT and Operational teams provided valuable insight into the desired Custom Workflows and Custom Navigations as per each department's specific needs and filled the gaps from the initial requirements gathering phases.
- ❖ As per the project plan, two departments of the client were identified as *pilot customers* to provide the feedback for the first 6-7 weeks of iterative development cycle and other departments were added progressively in the participative development as the Solution started stabilizing. This ensured the project objectives were met while at the same time keeping the redundancy of efforts to the minimum.

Implementing a Medium SharePoint Farm in Test and Production environments

- ❖ An optimal size SharePoint Farm was designed and deployed considering the *redundancy* and *failover* requirements. A Small to Medium size Production Farm was created which comprised of 2 Web Front End (WFE) deployments, 2 instances of Application Servers and a cluster of 3 Database Servers.
- ❖ The major factors considered were to meet the performance, redundancy and failover needs while keeping the Operational and Maintenance overhead to the lowest possible levels.
- ❖ A SharePoint Farm of matching size was created to be used in the Development and Testing environments on exclusive and time sharing basis during the development cycle.



Implementation Challenges

Business Challenges Encountered

Federal regulations for historical data retentions;

Converting 5 millions of historical documents

Per federal regulations, all historical documents should be retained for at least **100 years**. To the date, there were about **5 millions** of historical documents in the Bureau's document store. This demanded a solution to handle historical documents along with automating the Workflow of the on-going operations in handling the new documents.

- ❖ A separate content database was designed for storing the scanned documents.
- ❖ A separate Site Collection was created for uploading the scanned PDF to the Document Management System.
- ❖ Optical Character Recognition (**OCR**) was used to transform the scanned PDF to searchable text.
- ❖ If the uploaded document was historical, it got stored directly in the Document Management System. If the document was new (part of on-going work), automatic Workflow would kick-in and the process was routed to Executives.

Cultural change from Paper process approvals to Electronic approvals

- ❖ The SharePoint system was rolled out in phases to the Operations Team as the **early feedback** on the SharePoint implementation was very important to identify the gaps and implement the system in an iterative model.
- ❖ There was **natural resistance** from the client's team on the cultural change from the paper based process.
- ❖ Ample training sessions, followed by hands-on demos were needed to get the team to a stage of providing regular feedback on the solution and contributing to the overall process improvement.

Security constraints – Sharing information to external Vendors/Partners

- ❖ With the **"item level"** security in place for sensitive documents, SoftPath Technologies' team had to follow a **stringent** process for access to any information that was not already documented as part of the contract – be it the IT environment or the actual data for demos.
- ❖ Even providing URL's of item level sensitive document was **STRICTLY** prohibited.

Technical Challenged Encountered

Understanding the existing security policies in force for various departments

- ❖ Apart from setting up the SharePoint infrastructure for defining and implementing the security policies, **"real data"** on the existing security policies was required in successfully rolling out the solution in the operational environment.
- ❖ The information from various documents was collated in understanding the security requirements. This required understanding the overall business process in a little more detailed way for setting up different security groups (only authenticated users) to access the sites/content under sites.
- ❖ Specific requirements of each department, apart from the bureau level security requirements, were to be studied for designing separate Site Collections for each department with security trimmed.

Understanding the existing paper process Workflow of various business departments

- ❖ There was **limited documentation** available on the existing Paper Process Workflow.
- ❖ It required considerable efforts from the integrated team in coming up with a desired workflow that had to be approved by all the departments to avoid last minute surprises and minimize the adverse effects of assumptions.
- ❖ Handling this challenge successfully was a pre-requisite for designing and developing **Custom Workflows** using SharePoint Designer Tool.

Integration of ColdFusion® Dashboard reports with SharePoint 2010

- ❖ The client was using **ColdFusion** to generate Dashboard reports.
- ❖ Though SharePoint 2010 has native support for generating Dashboard reports online, integration of ColdFusion was chosen to minimize the extra effort in developing Dashboard reports.
- ❖ The biggest challenge that was successfully overcome was installing ColdFusion engine in SharePoint Farm and converting the CFM files to HTML version.



SoftPath

TECHNOLOGIES

Getting Technology Closer to Business

Automating Document Sharing Process for a Bureau of a Federal Department

Outcomes Achieved

The client met the primary objective by automating their Document Sharing process and maintained the requirements to be in compliant with the mandatory Federal regulations on Information Sharing, but with an accelerated and highly-reliable solution through SharePoint implementation.

The SharePoint solution, with an easy-to-use front-end Intranet Portal, is being used in the day-to-day operations of the Bureau by redefining their Document Sharing and Business Collaboration processes.

-- End of Case Study ---

Copyright Information

Microsoft, SharePoint, Microsoft SharePoint mentioned in this case study are trademarks or registered trademarks of Microsoft Corporation.

ColdFusion is a registered trademark of Adobe Corporation.