



PETRO-CANADA REFINES COMMUNICATIONS

2005 COMPUTERWORLD HONORS CASE STUDY

ENVIRONMENT, ENERGY & AGRICULTURE

GEOGRAPHY AND OPERATIONAL DIVERSITY WERE BRIDGED WITH A UNIQUE AND INNOVATIVE APPROACH TO KNOWLEDGE SHARING AND DOCUMENT MANAGEMENT, CREATING AN UNPRECEDENTED ENVIRONMENT FOR INFORMATION DISTRIBUTION AND COMMUNICATION IN A LARGE OIL AND GAS COMPANY. [20055390]

A Search for New Horizons



SUMMARY

Geography and operational diversity were bridged with a unique and innovative approach to knowledge sharing and document management, creating an unprecedented environment for information distribution and communication in a large oil and gas company.

Robert Carrigan,
Chairman of the Chairman's Committee

Ron Milton,
Vice-Chairman of the Chairman's Committee

Dan Morrow,
Chief Historian

APPLICATION

Petro-Canada is one of Canada's largest integrated oil and gas companies, and a significant player in the global market. The company explores for, develops, produces, and markets crude oil and natural gas, refines crude oil and other raw materials, and markets and distributes petroleum products and related goods and services. In 2004, the company generated earnings of \$1.9 billion.

Petro-Canada made the decision to implement an enterprise document management solution across all operations, fully aware that the diversity of their business units – ranging from upstream oil exploration and extraction all the way to downstream gas retailers – presented a host of unique challenges. Piecemeal solutions were already in place, but Petro-Canada was determined to seize the opportunity to develop a single system that would bridge all areas of operations and create a tighter synergy between their component businesses.

Opting for a solution that offered integrated, open architecture for a single end-to-end solution, Petro-Canada chose the Documentum enterprise content management system. Although the solution was intended from the beginning to be a company-wide information link, Petro-Canada chose to adopt an incremental roll-out rather than a wide-scale initial implementation. Almost a decade after the initial implementation, Petro-Canada is continuing their commitment to keep the Documentum system holistic while creating cutting edge software integrations to further draw together their business units, partners, and clients. In the past year and a half Petro-Canada has undertaken an astonishing fifteen new Documentum projects which have dramatically impacted everyone from the Board of Directors to the independent owner-operators of retail gas stations.

BENEFITS

The Documentum implementation at Petro-Canada has had a major impact on virtually all employees, from field workers who are able to access documents from any location to the Board of Directors who need highly secure and timely access to sensitive information.

Employees in almost every aspect of operations have altered their document and record searching techniques. Where once hard copies in a specific geographic location were the default format, now people look first to Documentum for an electronic version. With this shift in behaviour comes a shift in thinking about accessibility and sharing of documents. What was once the domain of a single operation, by virtue of its location within that business's archives, has now become the shared property of the entire Petro-Canada enterprise. Businesses can learn from best practices in other areas of operations.

Shifting from primary reliance on hard copies to a digital document management solution has rendered instant what once took many hours. For example, rather than searching for hard copies in a central repository – or having another employee do the searching if they were on the road – the Land Surface Contracts group can access everything they need from virtually anywhere using laptop computers and wireless Internet access. They are no longer tied to a specific place for the collection of needed data. Additionally, the people who once performed the actual searching for Land Surface Contracts workers in the field have been released from the need to perform this task.

Another example, by linking Documentum to their ERP systems Petro-Canada has improved compliance and auditability. Obtaining historical reports and invoices often required difficult and time-consuming workarounds but, through the integration with Documentum, Petro-Canada is able to search out data from any time period from SAP or Peoplesoft. Time period no longer presents a boundary to information retrieval.

The impact of these benefits, plus many others, will also accrue to the customers and shareholders.

IMPORTANCE

Petro-Canada had to address the issue of integrating widely varied operations on a scale that very few businesses must consider. Not content to develop local, independent solutions they undertook and completed an implementation of Documentum on a massive scale, engaging almost all of the potential facets of the platform, bridging geography and operational diversity, and creating a permanent information link that spans the entirety of the enterprise.

The resulting accomplishment dramatically enhanced document storage, searching, and retrieval. Also, Petro-Canada leveraged user-friendly intranet templates to make it easy for any employee to publish and share information on the company-wide intranet without specialized technical assistance. As more and more people started to take advantage of this aspect of Documentum, the company began to build an enhanced knowledge base while widening the channels of communications across operations. People weren't just using Documentum to find information in documents, they were using it to find information from one another.

ORIGINALITY

Petro-Canada decided to phase in Documentum using an incremental roll-out strategy rather than a big bang implementation across all operations at once. From the beginning there was an understanding that Documentum would become the powerful intra-company connection that it is today, but there was also a commitment to allowing the system to evolve organically into a dominant, central role. Petro-Canada's focus was on how they could best use Documentum to meet the needs of their many enterprises, not on imposing a rigid solution across the board.

This successful approach has borne several unique software integrations with Documentum. In the past, Petro-Canada stored seismic data on large Mylar sheets. When a request was made for access to the data the sheet had to be sought in the storage facility, transported to a reproduction facility, returned (with the reproduction) and re-filed. On average, this process took a full business day.

Leveraging the capabilities of Documentum, Petro-Canada developed a custom front-end for inputting seismic data images into the document repository, and a custom interface, integrating ArcGIS, for the search and retrieval of these images. Data that once took hours, or even days, to access is now available through a digitized map link or a text search in a matter of seconds. Further, because the data is now housed in a computer repository it can be accessed by any number of people, in any number of physical locations, simultaneously. Physical distance no longer poses a barrier to business, science, and exploration. "There are a lot of synergies at the technical records centre," says Bob Bresnahan, Senior Systems Analyst for Geophysical Exploration.

SUCCESS

Through their commitment to gradual roll-out without losing sight of the big picture, Petro-Canada has generated powerful user buy-in for the Documentum system based on demonstrable successes. From the initial project, managing intranet documents, to more recent developments users have responded with great enthusiasm and created a buzz within the company, leading other departments and business units to excitedly request Documentum for their own benefit.

By adopting an ongoing, strategically directed implementation, Petro-Canada was able to apply knowledge from one project to the next, effectively generalizing specific lessons from each project to further streamline the next. "The platform's scalability has allowed our diverse business units to...align it with their differing operational plans," says Elouise Wekel, Director of Corporate Systems and Information Management.

Moreover, the Petro-Canada approach has given Information Systems the opportunity and experience to shape Documentum to meet the needs of each business unit. One system yields myriad possibilities, while still serving to tie people and operations together.

DIFFICULTY

From the initial decision to deploy a unified document management solution, Petro-Canada was mindful of the difficulty of achieving user buy-in. The decision to pursue an incremental roll-out strategy was key to solving this challenge. Rather than forcing employees across all facets of the company to shift their technology at once, Petro-Canada carefully targeted those operations that stood to see the most immediate gains from Documentum and implemented the new system for them, taking the initial users on a voyage of discovery.

The positive response to the new system spread throughout the company, generating an increasing interest in and desire for wider scale penetration. When initial investigations showed a good business case for the wider use of Documentum, Petro-Canada found a population of users who were eager, rather than resistant, to embrace the new platform.

Obtaining budgetary approval for a costly and as-yet-unproven software solution can be problematic in many companies. Petro-Canada initially licensed Documentum for only those operations that required it. As success stories and employee demand began to build so too did a willingness to invest in a fiscally responsible manner and expand the project.

Many of the technical difficulties typically encountered in a massive system implementation were avoided by Petro-Canada's incremental approach. Lessons learned from trouble-shooting on a small scale were applied proactively as the project shifted to a larger scale.

With their original approach to the challenges of distance and operational variety, Petro-Canada created a document management system that dramatically changed the way their employees, partners, and clients thought about and accessed information. The Information Services department's principle of "enabling the business" to operate more effectively and efficiently has been served very well.