

Large Integrated Energy Company – Technical Data Search and Cataloguing

Executive Summary

Gimmel assisted this large energy company with the design and development of an information portal providing users the ability to intelligently search for technical information and data across upstream repositories. The project encompassed the entire system development lifecycle, from business analysis to deployment of a proof-of-concept system, and integrated commercial E&P systems, proprietary databases, and industry middleware and appliances.

The Challenge

Upstream professionals at this large energy company faced a major problem finding relevant data and information when starting a new project, revisiting a prior prospect, migrating staff from one asset team to another, or identifying the final or best version of a particular dataset or information resource. Pre-existing internal search tools within the company, primarily focused on unstructured data only, were not able to meet the needs of these users due to a lack of spatial or location-based search and no integration of structured and semi-structured data and content.

The Solution

The solution centered on a metadata catalog, supported by repository-specific metadata harvesters on the backend, and a robust portal interface allowing a combination of text search, spatial search, and a variety of faceted searches.

- The metadata catalog, built on commercial XML content database technology, was established with a core metadata standard and included a full-text index for text-based content.
- Backend harvesters leveraged commercial tools, energy-industry middleware, and a geocoding appliance to crawl various repositories and extract metadata, build full-text indexes, transform attributes to the metadata standard, and load into the metadata catalog.
- OpenSpirit technology was leveraged to provide seamless access to the structured and semi-structured data repositories. OpenSpirit enables access to these sources of information via standard SQL syntax allowing an easy process for harvesting the metadata necessary to drive the user's search. Leveraging the OpenSpirit platform also opens up the possibility to broadcast data from the search results in the browser out to several OpenSpirit-enabled G&G applications, streamlining access to data once the search has returned results.

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- The portal interface enabled users to search, interrogate, and access upstream technical data including spatial, structured, and unstructured content. The portal included a GIS client providing spatial search capabilities and allowing users to filter search parameters by a map window or bounding box. The interface also leveraged dynamic facets enabled by the use of high-performance XML content server functions.

The Results

The delivered system met the goals of the client, providing a working proof-of-concept of a portal search tool with full-text, spatial, and faceted search capabilities. The resulting system included backend harvesters for unstructured (Office-type) content, structured databases (OpenWorks, Oracle and Documentum), and semi-structured data (ESRI GIS). By leveraging XML Content Server technology (Mark Logic), the application database provided high performance and a scalable model.

For More Information

For more information regarding this case study, contact Gimmel Sales at 713-586-6500 or sales@gimmel.com.

About Gimmel Group

Gimmel Group is a nationally recognized consulting, professional services and solutions firm that helps the world's leading organizations improve business performance and compliance through the effective planning, implementation and integration of: Enterprise Content Management & Records Management (ECM/RM), Geographic Information Systems (GIS), and Web Design & User Experience.

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