



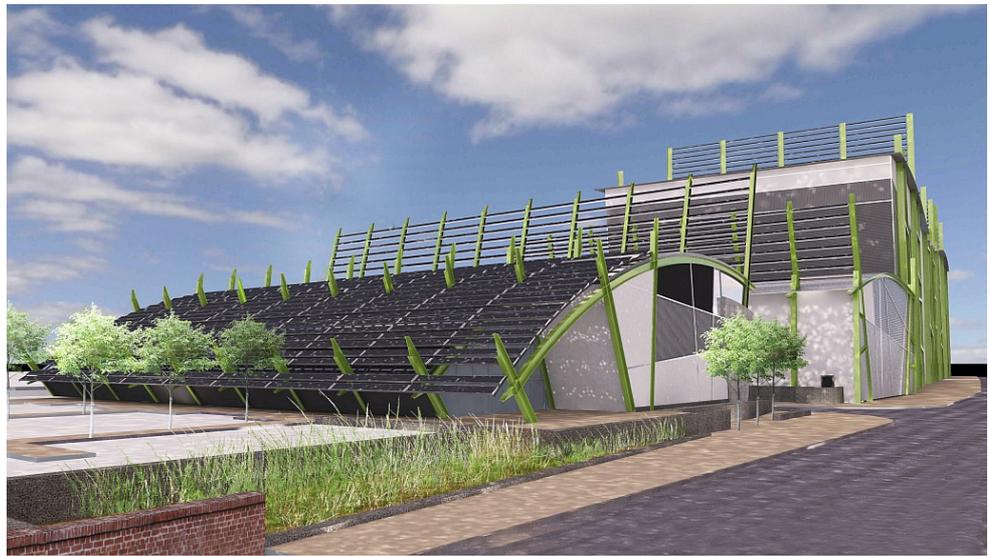
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Flax Case Study: Building bridges in the Cloud with open source search

November 2011

Flax helps civil engineering company C Spencer Ltd extend document management using powerful Cloud-based open source search



The Spencer Group manages and engineers projects across the UK and overseas in the rail, structures and renewable energy sectors. With 22 years' experience, they have more than 300 staff including engineers, designers and specialist technical personnel based throughout the country. Their commitment to open book working and steadfast safety procedures has helped them forge longstanding relationships with clients who include Network Rail and Drax Power Ltd. Notable projects include cable dehumidification work on the Humber Bridge, biomass handling facilities at Drax Power Station and the creation of a National Track Materials Recycling Centre at Whitemoor. In recent months they have been granted planning permission to build their own sustainable power station, Energy Works, in Hull's industrial heartland **(pictured above)**.

To track and manage documents associated with these projects, C Spencer Ltd built a powerful document



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management system (DMS) in-house that captures and tracks specifications, letters, contracts, emails and other client records. The system is based on an open source LAMP software stack and runs in the Amazon AWS Cloud. It is available to all staff across multiple office locations via a web interface.

C Spencer Ltd asked Flax to add full text search based on Apache Solr to the DMS, which holds hundreds of thousands of documents and millions of emails. Solr is a powerful, scalable enterprise search server written in Java and used across the world by companies including IBM, eBay, Ford and Boeing and by other Flax clients including Reed Specialist Recruitment.

Flax installed Solr on the Amazon Cloud and developed a custom indexing system written in PHP. The indexer fetches DMS content from an S3 bucket and metadata from a MySQL database. Apache Tika is used to translate any documents in proprietary formats such as Adobe PDF and Microsoft Office into plain text, while email messages are handled with the open source Plancake parser.

Both batch and incremental indexing is supported, so that changes in the DMS are quickly reflected in the search engine index. The system supports the full range of Solr search features.

"The new search engine indexes all our documents quickly and gives our users search results in less than a second", says Charles Spencer, Managing Director. "Flax's long experience and expert knowledge of enterprise search has been invaluable - they had the new system up and running in a matter of days."

"Spencer's document management system has had huge business benefits in that it allows information sharing and management across multiple sites and parties including full open book access for clients. It has also allowed the company to make progress towards a paperless working environment and has revolutionised the archiving process and the need for expensive storage. The retention of all information passing through the system including email



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traffic has resolved many problems caused by vital documents being held on personal computers or hard copies filed elsewhere and the solution Flax has collaborated on means that this retention is now matched with the power and speed to locate and report at the touch of a button."

"C Spencer Ltd are clearly aware of the advantages of open source software and cloud computing in running a modern business." said Charlie Hull of Flax. "Being able to find the right information at the right time is absolutely key to their ability to deliver projects, so a powerful search engine is an essential component of their system."

About Flax

Flax is highly active in the information retrieval market with international clients from sectors including academia, public relations, e-commerce, government and private businesses. As a cross-section Flax's clients include Reed Specialist Recruitment, Accenture, the Newspaper Licensing Authority (NLA), Durrants Ltd., The University of Cambridge and Mydeco. Flax delivers a cutting-edge enterprise search solution, using the power of open source software to drive down costs and provide world beating search performance with no software licence fees. Flax is an authorized partner of Lucid Imagination, the commercial company behind Apache Lucene/Solr. Flax's accolades include an award from the British Computing Society for its powerful, innovative search tools.

For further information please see <http://www.flax.co.uk/>