Geoscience Australia Case Study – upgrading an unreliable EDRMS and strategies to gain user acceptance

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Summary

In 2001 Geoscience Australia implemented an agency-wide electronic document and records management system (EDRMS) with the aim of phasing out physical records management, which at that time was centralised and the responsibility of the Records Management Unit. The initial rollout did not include a business classification scheme and records disposal authority – these were implemented in early 2006.

Following the initial implementation, a number of software releases and improvements were made to the system in parallel with internal initiatives to streamline user accessibility through Geoscience Australia's intranet.

The 2004 software production version eventually became unreliable to a point where document content indexing and the intranet interface were a concern. In addition, this version was no longer supported by the vendor and user uptake of the corporate EDRMS was relatively small – 23 per cent. Rather than starting again with a new product and outlaying the cost of setup, the agency chose to upgrade the current software and system server.

This case study highlights a set of strategies that resulted in a successful upgrade, and shows how crucial it is to attain Chief Executive Officer support, gain user acceptance, test, and test again before a new system is rolled out.

Agency overview

Formation

As the national agency for geoscience research and geospatial information, Geoscience Australia operates as a prescribed agency within the Resources, Energy and Tourism portfolio. Formed in 2001 with the amalgamation of the Australian Geological Survey Organisation and the Australian Surveying and Land Information Group, the agency employs approximately 800 staff, 85 per cent of whom are scientists. The agency head is the CEO. All staff work from the Geoscience Australia building, which is a purpose-built geoscientific research facility in Canberra.

Business activities

Geoscience Australia plays a key role in developing a sustainable energy supply for Australia's future. It looks at issues such as the global attractiveness of Australia's offshore and onshore exploration, improved resource management and environmental protection.

Onshore activities focus on enhancing mineral exploration and environmental land-use planning. This is done through the production of geoscience maps, databases and information systems, and by conducting regional geological and mineral systems research. Its activities also contribute to safer communities and critical infrastructure, and the maintenance of fundamental gravity, geomagnetic and seismic networks.

Offshore activities focus on providing pre-competitive data and information to assist in identifying new prospective basins for petroleum exploration and the geological storage of carbon dioxide in Australia's offshore jurisdiction. Activities include mapping and documentation of Australia's maritime boundaries, studies of the marine environment using seabed mapping techniques, and determining estuarine water quality and health. These studies assist natural resource management.

Geoscience Australia also focuses on providing key spatial information with an emphasis on response to rapid and slow onset hazards, detection of change, emergency management requirements, natural risk assessment and marine zone management. Activities also include coordinating the implementation of the Australian Government's policy on spatial data access and pricing.

Records management

Located across diverse repositories, the agency's records – datasets, maps, drawings, core samples, technical specifications, contracts, correspondence, agreements, technical reports and so on – are mostly generated from complex digital systems, and scientific research projects and initiatives. Many of the records need to be retained as national archives. For records management purposes a clear delineation is made between corporate records (administrative and correspondence files), and national and international scale datasets, databases, maps and catalogues of products and publications.

Geoscience Australia has a decentralised records management environment, where all staff are responsible for creating and registering their own electronic administrative files, with the Records Management Unit monitoring the quality of the process. A small number of paper files are created by the Records Management Unit for legal matters and contracts. EDRMS training and weekly refresher sessions incorporating recordkeeping fundamentals are provided by the Records Management Unit.

About the project

Agency expertise

The process of upgrading the corporate EDRMS began in late 2007 with the establishment of a project team. Having experienced a number of earlier system releases, improvements and user training, the team already had a good understanding of the functionality, technical capacity and usage of the system. Comprising staff from the Information Services Branch, the team's responsibilities included:

- overall coordination of the upgrade, planning and communications/change plan
- development of an updated training manual
- arranging and conducting information and training sessions on the new application
- development and running of regression test scripts
- corporate database support.

Change Advisory Board

Aware that a communications strategy for the upgrade was essential, a range of project documents was developed, which included a project and communications plan, an issues and fixes log, and a web operations plan. In addition, it was necessary for a request for change template to be completed and submitted to the Change Advisory Board for its approval. The request for change document provided the Board with a summary of the business case, risk analysis, project resources, and an upgrade and contingency plan should testing of the new version reveal insurmountable problems.

Following the Change Advisory Board's approval of the upgrade project, demonstrations of the new desktop interface and an explanation of the upgrade process and timing were presented to staff at briefing sessions. This included the corporate Recordkeeping Reference Group and a focus group specifically established for the upgrade project.

Comprising a cross-section of staff representing all business units, the focus group was consulted regarding the 'look and feel' of the EDRMS desktop client, and also participated in the functional testing of the new product. The continued involvement of the focus group was integral to the process of determining which features would be delivered to staff and an agreed desktop configuration. Consultations with the Recordkeeping Reference Group focused more on strategic and policy requirements for agency recordkeeping.

Throughout the project, all stakeholders were kept abreast of progress via emails at critical points, intranet articles and notifications requesting staff 'clean out' their EDM folders to minimise the potential risk of data loss.

Test strategy

Achieving a successful project outcome required 800 functioning desktop clients and stable and working links among the EDRMS, intranet and personnel databases. The testing process involved:

- all members of the project team
- agency ICT staff who were responsible for providing technical support and advice
- a pilot group of PCs for installing/upgrading the new desktop client and the testing interface/scripts upgrade package.

Completed in May 2008, the overall testing process successfully covered three test upgrades, 12 tests of client functionality via test scripts, and an operation of silent install process for 800 desktop PCs with exceptions noted. The significant amount of pre-upgrade planning and testing proved to be effective, as the number of problems cited was relatively small, relating mainly to issues around delivering the upgrade package to desktop PCs and assisting users. Only 16 PCs lost short-term access to the system.

Training program

Before going live, which was scheduled for the end of May 2008, training was provided by the Records Management Unit. It covered:

- full training sessions for new and existing staff in the new system the week before the upgrade, or
- short 'what's new' sessions that simply required a refresher or question-and-answer session on the new system.

For two days following the upgrade Records Management Unit staff carried out 'floor walking' to ensure staff had transitioned to the new system with minimal disruption to business processes.

User uptake

To encourage use of the system, an incentive-based clause was negotiated for the 2005–08 Certified Workplace Agreement, where if a certain quota of documents were correctly registered within the system, staff would receive an additional pay rise for the period. Assessed on a minimum monthly usage rate, user statistics were categorised into divisional groups and sent out at the end of each month to division heads. Although not integrated into core business systems, the upgraded EDRMS was available to, and used by, all staff as part of the agency's standard operating environment.

The usage rate climbed to 50 per cent and continued to grow as more short training sessions were attended by staff. With the upgrade, 200,000 documents were in the system and numbers continually rose – more than 80 per cent were emails. Importantly, several hundred documents per month were registered in the system by the CEO.

Project outcomes

By 2004 the corporate EDRMS, implemented in 2001, had become unreliable, outdated and unstable, and user uptake was only 23 per cent. The system was at risk as it was no longer supported by the software vendor. Critical business information captured and maintained by the EDRMS was in jeopardy of becoming inaccessible, un-locatable and, potentially, permanently irretrievable. Rather than starting again, a decision was made to upgrade the existing software and system server.

The corporate EDRMS upgrade success rate was 98 per cent – only 16 PCs lost short-term access to the system. But more importantly, the project provided an opportunity to leverage the ongoing visible commitment and support of the CEO, who was already a 'believer'. The upgrade effectively raised the bar for required capabilities and training, and is regarded by other agencies as a best practice site.

The key messages from the upgrade project are:

- The support and visible commitment of the CEO are vital to system uptake.
- To address the conversion, migration and integration issues that affect other systems and processes, the development of a comprehensive change-over plan is critical. This plan should include support structures and a dedicated helpdesk where staff can seek both technical and records management advice.
- Key stakeholders need to be updated regularly, and business units involved in an EDRMS upgrade need to be informed of developments on a regular basis.
- Upgrade deployment methods should be based on a risk management approach. A pilot project provides an opportunity to test the technical capabilities of a new version of an EDRMS, and experience how it will operate within an agency's infrastructure alongside other programs and systems before it is fully rolled out.