Decommissioning business systems

Many business units have accumulated large amounts of data in legacy systems. Many of these systems were not designed with a long term view of the value of the data they generate and contain. These systems may contain high value records and information, or data that is trivial, duplicated or no longer required. Because they often rely on niche expertise and technologies for ongoing maintenance, often from a single vendor, long term storage of records in legacy systems may pose significant cost and risk.

All business systems will eventually become legacy systems due to changing technology and business environments. Ideally, decommissioning planning will form a part of system design and implementation. There is a number of workflows and methodologies available to assist organisations in decommissioning legacy business systems. Many of these approaches have originated in the IT domain, and are primarily concerned with data integrity and security rather than meeting recordkeeping requirements. Records management provides a useful process for assessing the value of records in business systems and determining the best strategy for managing them.

# Considerations when decommissioning systems

## Identify existing system environment

Any decommissioning project should start with an investigation of the system to understand what records are held in the business system and how long they need to be retained. Along with assessing the business processes and actions that a system is supporting, an understanding of the structure of the records and metadata should be sought. Research during this phase may involve discussion with relevant business managers, systems administrators, and end users, or demonstrations of the software. A useful source of information may be the systems architecture register.

The structure of records in a business system can be complex, and may include any of the following:

* Tables in a database
* Individual database records (field information)
* Entire database
* Reports generated by the application
* Linked documents/data in other systems
* User account information and permissions
* Audit logs
* Dependencies/links with other systems

## Appraisal

Once the nature of the records in the business system is adequately understood, an appraisal process to determine the recordkeeping requirements is likely necessary. Many business systems were commissioned to fulfil specific information processing needs, and ongoing recordkeeping requirements may not have been taken into consideration. Along with establishing required retention periods, consideration of other legislative requirements (eg the *Information Privacy Act 2014*) or applicable data standards may be necessary.

Business systems and their databases can be complex, and may contain multiple record types in aggregate form, such as routine records of financial transactions, alongside more permanent registers.

## Applying retention requirements

Data may be in discrete tables and able to be managed separately, or may be in more complex aggregate structures that will have to be managed in accordance with the longest retention requirement.

A suggested approach would be to document record types, making note of recordkeeping requirements and retention periods, along with a precis overview of the data structure. This information will inform the approach to decommissioning the system, based on business need and budget.

## Strategies

While no means an exhaustive list, decommissioning methodologies will likely fall into three broad categories.

1. Migration

To meet ongoing business needs, including retention and access requirements, records may be migrated to a new business system before the old system is decommissioned. There may be direct vendor support of this process if the new system is an upgrade. Migration to third party systems may also involve the translation and mapping of data to the new system.

1. Archiving

If migration is unfeasible or uneconomic, exporting of records to a long term preservation format to be stored elsewhere may be possible. Depending on the number of records or complexity of the data, this may impact access. Data may be able to be exported using multiple queries to produce files containing records with different retention requirements. Care must be taken to ensure that metadata such as audit logs are appropriately retained, and that the exported data is structured to facilitate text searching.

1. Recordkeeping in place

If the required retention of records in the business system is short, then the cost of decommissioning the system should be weighed against the cost of keeping the legacy system running for the required timeframe. Costs may be able to be brought down by shifting a business system from dedicated server hardware to a virtual machine, as performance requirements should be more modest.

## References

[Manage records when decommissioning business systems (QLD](https://www.forgov.qld.gov.au/manage-records-when-decommissioning-business-systems))

[Managing records in business systems: Overview (TAHO)](https://www.informationstrategy.tas.gov.au/Records-Management-Principles/Document%20Library%20%20Tools/Advice%2018%20Managing%20Records%20in%20Business%20Systems%20-%20Overview.pdf)