

***SvalTech, Inc. Essay Series***

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## **Essay 1: Why Should We Look at Database Archiving**

Database Archiving was a fledgling technology when the recent recession hit. It had been identified as an important new technology for IT, had some early adopters implementing it, had several vendors building software support for it, and was on its way. In 2008 the total dollars spent on the technology was closing in on \$100M and Gartner was declaring it to have a 40% per year growth future for several years. It was expected that within 5 years all major IT shops would be deploying Database Archiving technology.

Then the recession hit; IT departments slashed budgets, laid off many staff members, sent consultants packing, cancelled projects in the works and crawled under their desks. This is a typical response to a recession. IT always gets called on to lower costs because it generally has a large budget. The CIO has no choice but to curtail new ideas, new projects, and devote the remaining staff and dollars to operations. You can't cut operations but you can put off improvements. It does not matter how much a new technologies can improve your operations and bottom line - they have to wait.

As expected, Database Archiving took a strong hit over the last two years. Since it was a new technology, it required that IT shops spend time and money to explore, try it out, and deploy it. This has not happened. IT managers are reluctant to go to the CIO and ask for permission to deploy something new that will take staff time and dollars to implement. After all, they don't want to be the next one laid off.

This happens every recession. New ideas get pushed to the back. The question for these technologies is whether or not they will return again after the recession is over and resume the upward climb to their rightful place in the IT infrastructure fabric of the company.

### ***Why Should an IT Manager Look at Database Archiving Now***

Database Archiving was a response to a problem, as most new technologies are. The precipitating problem was overloaded databases: databases that were filling up with inactive data records that were required to be kept but which no longer had any business value. The presence of these records was causing increased system upgrade costs and impacting operational performance. Database Archiving emerged as a logical solution.

Database Archiving is a process of removing inactive data from the operational databases on a regular basis and storing it in a different format more appropriate for long term data retention and access when

needed. It attempts to separate inactive data from the operational systems, application programs, and daily business processes. It is a logical component of life-cycle management of data. Most companies are archiving emails and documents. Database Archiving is the next logical topic to be addressed. It is more complex, but also promises more value in terms of cost savings, operational performance improvements, and improved data safety.

The problem that started all of this has not gone away. No alternative solution has appeared that makes Database Archiving no longer needed. The databases are still getting bigger with the percentage of inactive data continuing to climb.

The business case for database archiving is only getting larger as IT shops ignore the problem for now.

### ***What are the reasons for using Database Archiving?***

Before the recession stopped database archiving in its tracks, the benefits of database archiving were understood in only vague terms. However, much more thought has gone into improving our understanding of how Database Archiving impacts our operations and cost structures.

Each application has an optimal potential benefit that can be achieved from using Database Archiving technology. This optimal benefit can only be achieved through a robust design and implementation for an application. A partially or poorly implemented solution will reduce the benefit from optimal, often to the point where it is not worth implementing. This is an important point to keep in mind.

Many IT shops have prior experience with home-grown solutions or solutions implemented with vendor software that was incomplete or structurally unsound. This is not unusual for early stages of a new technology. These efforts failed to receive any significant benefit and often creates new problems. These negative experiences are still remembered today. May IT shops have not seen what a good implementation can do.

For removing inactive data from operational systems where the required retention period for business records is long (7 or more years) and the business need period is short (2 years or less), the optimal benefit will include:

- > improved operational performance through having smaller operational databases
- > cost reduction through storing inactive data on lower cost storage devices
- > cost reduction through avoiding system and software upgrades on operational systems
- > improved protection of inactive data through isolation from operational users
- > improved quality of inactive data through isolation from application changes

Based on the size of the databases and the degree of inactive records, these benefits can be huge.

During recent years, database archiving enthusiasts have discovered that archiving data from databases no longer in use can have its own optimal benefit package. If you have databases left around after applications are terminated due to replacement, merger activity, etc. the use of Database Archiving can offer the following benefits:

- > free up systems, allowing them to be redirected to other applications
- > cost reduction through termination of software licenses for DBMS and applications
- > free up technical staff from maintaining expertise on older systems and applications

Taking this one step further, if you are planning a project to replace an application or to merge applications resulting from a merger or acquisition, Database Archiving can be used to archive the old data and avoid forcing it to fit into the database of the newer, resulting application. This can have the following optimal benefits:

- > reduce time needed to design the replacement application
- > eliminate need to cleanup and transform misfit data
- > start new application with minimal operational data

### ***What about the Technology? Is it getting better?***

While IT shops have been hunkering down during the recession, the Database Archiving folks have not. Every software vendor has improved their products and new software vendors have entered the market during this period. Data Management teams will find that the current crop of product offerings are much better than those of 3 years past.

A couple of years ago you could not find a consultant who could help you with understanding, organizing, and getting started on applications for Database Archiving except from the vendors providing software. Much of the work of setting up a practice must take place before you approach a software vendor. The choice of vendor for an application should be a function of prep work you do in advance. Today, such independent consultants are available.

There has been a great deal of information disseminated on Database Archiving concepts, benefits, implementation models, etc. through technical conference presentations, articles, white papers and books during the last two years. The model of Best Practices for archiving database data has been solidified.

As a result of all these factors, the cost of getting started is lower, the cost of implementing is lower, and the benefits are higher.

### ***So Why Look At it Now?***

There are a number of reasons why Database Archiving may be a good choice for expanding data management early in the recovery cycle of the IT budget.

**Low cost to implement.** Database Archiving requires a minimal staff to get started and implement the first application. Typically, one or two staff members can educate themselves on the technology and do a few applications. You generally do not need to build a new department and hire a bunch of folks.

**Quick time to implement.** A first application can be designed, tested, and placed into operation within a few weeks. An IT shop generally has several applications that can benefit from archiving database data and the ones with the easiest implementation can be selected first.

**Quick return on investment.** Database Archiving applications can have surprisingly quick return on investment curves. Within a few months of operations the entire cost can usually be recovered. This is due to the fact that the opportunity for benefit has been accumulating for years in these databases. Getting the first big slug of inactive data out of the database can have surprising and instant returns.

**High Visibility.** Database Archiving projects can light up operational applications. Everyone in the user community will notice the difference.

**Easy to document results.** It is relatively easy to quantify benefits. Performance differences can be measured, batch times can be measured, scan times can be measured, storage cost differentials can be computed, upgrade avoidance can be priced, and terminating software licenses can be priced.

**Lots of people are involved.** The stakeholder list is long, employing many people on a part time/ casual basis. For example, records retention, legal, storage administrators, security administrators, DBAs, user analysts, and governance staff all play a role. Getting all of them involved in a quick hitting project will boost morale across the entire organization. The time needed for each is very small, but their contribution can be large. Their specific contribution to the enterprise will be enhanced.

**Accelerates improving budgets.** As you come out of the recession you should have a plan on how to deploy rising budgets to the best benefit of your organization. If you can implement fast return items first, then you will have more money available for the larger projects. Also, Database Archiving can reduce the time and cost of other projects pushed to the shelf when applied to them. This holds true for renovation projects, merger and consolidation projects, and legacy retirement projects. Build an expertise in archiving first and then see how it helps these other projects.

Rarely does a new technology require so little to get started and return benefits so quickly. Database Archiving may be the spark that gets your data management function back to improving the professional management of your most precious asset: your data.