

A SOLIX WHITEPAPER

# APPLICATION RETIREMENT ROAD MAP FOR LEGACY APPLICATIONS

Reduce Cost  
Maintain Data Access

## Contents

Retiring Legacy Applications.....	1
Enterprise Data Management and Application Retirement.....	1
Determining Retirement Candidates.....	3
Application Retirement and Data Management.....	4
Data Migration Challenges.....	5
Road map for Retiring Enterprise Applications.....	5
Solix Application Sunsetting and Migration.....	7
Solix Database Archiving.....	8
Conclusion.....	9
Working with Leading Organizations Across the Globe.....	9
Fast Facts.....	9
Our Partners:.....	9

## Retiring Legacy Applications Streamlining Application Portfolios



As technology becomes obsolete and organizations deploy new applications, many enterprise applications wind up outliving their usefulness and become known as a “legacy application”. Every organization needs to be actively looking at their IT portfolios for applications, systems, and platforms that cost them more to maintain than the value they are delivering. Technologies like the advent of the Internet are game changing events for enterprises that can force a whole new way of information access and delivery but new technologies and applications are constantly forcing their way into organizations through mergers acquisitions or organic technology acquisition, potentially diminishing or forcing out once core applications.

Application Retirement is a strategy to remove legacy applications from use while retaining access to the useful data contained in the legacy application. Retiring business applications make sense when:

- Redundant systems exist within the organization; common among organizations that have grown through mergers and acquisition
- Lower cost applications, technology platforms have emerged
- Legacy applications or databases are still in production for which support has been discontinued

Multiple source applications impact the ability to meet regulatory or legal requirements due to the time needed to process a request. Consolidating data and retiring legacy applications reduces the burden on IT resources to support legacy applications that provide minimal business value to the organization. By consolidating legacy data, line of business and IT resources are freed from manually consolidating data, maintaining obsolete technology, and risk of report consolidation and data analysis errors can be reduced.

## Enterprise Data Management and Application Retirement Drivers for Application Retirement (Application Sunsetting)

As organizations grow, merge or consolidate operations, the number of enterprise systems that IT departments support continues to grow. Efforts to reduce IT spend on existing infrastructure are bringing focus on application retirement as a way to fund new projects or make existing IT budget go farther.

## Cost Reduction

Gartner estimates that aging and less frequently used applications that should be retired contribute as much as 20% or more to the overall IT organization resource baseline requirements.<sup>1</sup> These applications consume computing resources, storage, and manpower to maintain production status yet provide very little business benefit to the organization. Often, applications that used to support hundreds of users at rollout are now only being used by very few people in the organization. While the majority of IT budgets go to supporting existing applications and licenses, very little attention is typically paid to the total cost of maintaining a legacy application.

## Vendor consolidation and trends in support and resource availability

Oracle is the largest enterprise vendor consolidator, purchasing 43 applications since 2005. These acquisitions have significantly added to Oracle's portfolio in the last few years, including PeopleSoft, JD Edwards, CRM vendor Siebel, PLM vendor Agile Software, Retail systems vendor Retek, to name just a few. While SAP has mainly pursued a build strategy for its ERP stack, Infor has built its enterprise management platform through acquisition of smaller vendors such as BaaN, e.piphany, GEAC, SSA Global, Extensity and Systems Union among others. Companies that have installed these applications need to evaluate continuing with the consolidated platform or migrate to a different vendor.

## Oracle Fusion

Oracle Fusion applications will most likely be based on the current E-Business suite data model with E-Business suite processes and a new PeopleSoft influenced user interface. While functionality will be the same or improved over existing PeopleSoft, JD Edwards, Siebel, or Retek Applications, existing users will have to migrate their data to new versions of existing applications or to Fusion in a single or two-step process. Alternatively, some users may choose to migrate to other ERP platforms.

## Move to packaged applications

The nature of business applications is evolving such that the trend for organizations is to move away from internally building applications to packaged, modular application architectures. Enterprise applications from SAP and Oracle are leading the market with core applications, typically in the finance, supply chain and customer areas and adding any number of bolt-on modules to extend the platform's reach beyond the original scope of the application. These monolithic applications may one day continue to evolve as SOA architectures emerge. No matter what the future, older, non-modular application stacks need to be evaluated for their long term future in the organization and a plan to continue or retire the application must be developed.

## Mainframe migration

Organizations may also be considering migrating proprietary mainframe environments to newer, modern architectures to lower both hardware and software costs associated with these legacy systems. While very robust in nature, mainframe resourcing can be challenging. Organizations considering moving to packaged, platform independent applications may see significant long term savings from retirement or data migration.

## Determining Retirement Candidates

Enterprise applications can easily outlive their value to the organization. Functionality is often duplicated, developed on divisional basis, often containing the same customer information. Changes in architectures, business processes, hardware platforms, software architectures or delivery systems can hasten the demise of once useful enterprise applications. IT and business inertia keep these applications in service long after their use to the business has expired.

## Considerations for Application Retirement

1. Evaluate the business need of the application
2. Evaluate product road map and supportability
3. Identify risks, benefits, cost of status quo or migration
4. Evaluate Retirement Plan with stake holders

## Evaluate the business need of the application

Prepare an audit of the information contained in the application and the value of the information to the organization. Record whether the data is duplicated in other systems or if it is unique to that system. Track how often is the data being accessed and by whom. Some organizations questions to consider when evaluating retirement candidates are:

- Are those accessing the system casual users or are there only a few power users who have frequent access?
- Is the application being maintained only for reporting?
- Is the value of the application in the data itself or in the application?
- Could migrating the data out of a low-use application to an open standard repository allow users to retain use and access of the information while lowering software maintenance costs and license fees?
- Is the application a siloed application or is its data a critical feed to another application?

A full audit of the application users and interdependencies needs to be undertaken to develop the full picture of an application's readiness for retirement. Any retirement project should be a partnership between the business, compliance, legal and IT staff.

## Evaluate the business need of the application

Research the company's and analysts' position on future product direction and make a determination of the application's upgrade effort and long term.

- Will the evolution of the product line fit into your application and technology stack now and will the future version of product still work within your IT infrastructure and technology direction?
- Are resources readily available to support the product or have you become dependent on a few employees or consultants for support?

For Oracle E-Business users, the upgrade to Fusion will be an upgrade, for JD Edwards, PeopleSoft and others, it will be a migration or status quo.

## Identify Cost, Benefits, and Risks

Retiring applications will require short term investments in resource time. The project would include a level of effort analysis, plan on migrating data, shutdown of any legacy application, the evaluation and acquisition of any additional tools that may be needed to facilitate the data migration. The license and application data maintenance costs to maintain the existing application must be calculated so the cost of project can be weighed against the expected savings. The risks are two-fold. Doing nothing can leave systems unsupported as operating systems and platforms become obsolete, especially if an unexpected event occurs which brings an outdated system down.

## Evaluate Data Migration and Retirement Plans

The key element of a data migration project is to understand how users expect to access the data after retirement. Depending on the type of system and the latency of the data retrieval, decisions need to be made about what data is to be migrated to the new application, what data is to be archived into a common store and what data can be thrown out all together. Age, relevancy, regulatory and legal requirements all come into play here. Migrating data from one data model to another is always a problematic affair so the more planning and tiering of data done at this stage will make data migration to the new application easier.

## Application Retirement and Data Management

Reducing cost, eliminating redundancy and lowering IT complexity and risk are all valid reasons for starting an application retirement project. However, shutting down an application and migrating the data to an alternate data store is not without risk. For many organizations, maintaining an obsolete application may be considered less risky than undertaking a migration project that may upset a few key users of a legacy application.

## Long Term Data Retention

The easiest way to retire an application would be to shut off access, pull the plug and forget that the application ever existed. Unfortunately for IT organizations, the data

probably may have some value to the organization. Further still, there are a myriad of government and civil regulations that require data be retained from a minimum of 7 years for financial records to unlimited data retention periods for many medical records. Basel II (Financial Services), HIPAA (Healthcare), S-Ox are just a few regulations that have data retention and access requirements.

Enterprise data archiving is a proven approach to archiving data to an online active available archive while purging the same data from production enterprise application. Enterprise archiving solutions offer key features to ensure referential integrity of data during the archive process while maintaining data access in a cost-effective storage platform. If data retention policies are required in your industry, consider an enterprise archiving solution to begin institution best practices in Information Life cycle Management.

### Data Retrieval

Along with long term data retention policies, organizations are required to maintain data in the same context and meaning of the original use. Litigation and new eDiscovery requirements add to the burden of data retention and retrieval. Data that is migrated to a new application, say from a homegrown General Ledger (GL) application to a packaged application such as Oracle E-Business Suite, will naturally retain the business context and structure of a GL application but when data is migrated from legacy application to application independent stores such as a data warehouses or data marts, maintaining business context with the data becomes more difficult. In that case, Business Intelligence (BI) reports generated from the original applications can be deployed on the independent archive or data store but still must yield the same result.

Enterprise data management provides archiving of business application data to almost any RDMS or XML, on different operating systems, databases with the ability to subset or de-archive the data as needed. Data access is maintained through standard BI tools.

### Data Migration Challenges

A major issue for data migration is the effort associated with the migration project, downtime associated with a migration, and the data migration priority when compared to other projects on the docket. With many organizations running worldwide operations 24/7 there is little or no available downtime. Even with minor updates, there is no application migration that does not carry some risk. Unexpected downtime in a global corporation can result in significant business risk. Other concerns include data corruption, application performance, network slowdowns, and compatibility. To reduce risk, many migrations are performed on weekends, increasing overtime costs or IT staff dissatisfaction. As the volume of data that has to be migrated increases, so does the risk associated with migration in terms of down time and data corruption.

## Inaccessibility to the Data

Once applications are decommissioned, unless reports have been replicated in a new system, data is not available in the original context. For sensitive or data subject to government or legal seizure maintaining access in the original context is a major requirement. This means that extra time and effort needs to be added to the scope of the project ensuring that the replicated reports are in fact accurate and exact. Until validation has been completed in its entirety, the legacy system cannot be shutdown.

## Road map for Retiring Enterprise Applications

### Assess the data and application environment

Unlike upgrades, application retirement results in the shutdown of the application that contains business context that needs to be replicated in the new application or common data store. Thorough evaluations are needed of both power and casual users and any shared uses of the data so business continuity is maintained after application shutdown. Any application retirement project should be viewed as a partnership between the line of business and IT to identify and eliminate any data dependencies. Finally, legal and procurement should review license, privacy and maintenance agreements for the retiring application and what, if any, additional licenses may be required when users are migrated over to the new system.

Application retirement may be a resource intensive activity and specialized skills may be needed to map the data from one application to another. Staff maintaining the existing application will need to be retrained or re-purposed when the application is shut down. The legacy app DBA's will be critical to the mapping and shutdown process so care needs to be taken as the projects progress to alleviate job anxiety.

### Maintain accessibility to the data

The primary reason for migrating data rather than just purging or archiving offline is because there is a real-time or quasi-real-time access requirement. If that is the case, data access must be maintained no matter what the destination target is, whether going from Baan to E-Business Suite or other ERP to Oracle or MySQL database. Deploying migration tools helps by speeding the data migration process while reducing risk associated with manual processes. These tools can help identify the database schemas, application logic, dependencies and data usage of both the legacy application and target, reducing the manual mapping effort from source to target. Utilizing a tool with a common metadata repository is critical to maintaining perspective and is essential to success in migrating data from one application to another. By being able to read and store the metadata for the application data model, the tables, links and joins in a central location for source and target, efficient data mappings can be achieved. Migrating data saves application maintenance and resources costs while maintaining data in the original context needed for both business and compliance needs.



## Archive the data before migration

Most analysts agree that 80% of information in any given database is under-utilized or of little value to the organization. Utilizing an archiving and migration platform, IT departments have the option to archive the majority of legacy data to a common data store and migrate the most recent, mission critical information to the new application. By migrating a smaller data set, downtime and complexity is reduced and under-utilized data does not burden the new production application.

## Migrate and Shutdown the Application

Once the data migration is complete and tested, final shutdown of the application can occur. Build and process documents should be archived and steps taken to secure any sensitive information and that back-up copies of the application and data are stored adequately in case of an unexpected need.

## Solix Application Sunsetting and Migration

Solix Application Sunsetting and Migration offers organizations an efficient project accelerator for migrations of any nature including:

- Data migration across applications: Legacy, Mainframe, BaaN, JDE, PeopleSoft, Siebel Oracle, SAP, custom and other legacy applications. while allowing changes to chart of accounts, organization structure, costing methods, etc.
- Data migration across operating systems: Windows, Linux, Unix (Solaris, AIX, HP-UX) while allowing changes to Technology Stack, Middleware etc.
- Data migration across databases: Oracle, DB2, Informix, Sybase, SQL Server while carefully accommodating changes to Data Types

## Ensure Seamless Data Migration

Solix Application Sunsetting and Migration utilizes the archive engine of Solix Enterprise Data Management Suite instead of traditional ETL tools. This allows faster, seamless, and controlled data migration while implementing Information Lifecycle Management by storing current data on high availability storage tiers, historical data on lower cost storage tiers and the data that is no longer needed to be accessed on offline storage such as optical, magnetic, and similar media. With Solix Application Sunsetting and Migration, enterprises can:

- Configure metadata mapping for all major ERP's and custom applications
- Save considerable effort during analysis and design phases with pre-populated data mapping for popular ERP Applications
- Leverage pre-built control, audit and error handling resubmission for post-processing corrections
- Consolidate instances into a single global archive repository

## Ensure Customizations Remain Intact

Companies deploy several customizations to packaged ERP and CRM applications that perform their business specific processes. This requires that the necessary customizations are fully compliant and successfully upgraded for compatibility with new data model. The complexity of the customizations upgrade increases in situations where interfaces to third party systems are maintained. Thus, successful application and customizations upgrade are the result of a solid upgrade strategy, which cannot be overlooked. With Solix Application Sunsetting and Migration, enterprises can:

- Identify and maintain a repository of customizations
- Maintain a repository of metadata changes between previous application versions to the latest application release
- Perform an online impact analysis
- Intelligently identify and recommend changes in the customization code required using the metadata knowledge base repository
- Provide the Migration Effort Estimate
- Automate migration of upgraded customizations from source to target environment

## Benefits of Solix Application Sunsetting

**Improve Operational Efficiency:** The need for migration of applications in enterprises arises from changes in business demands or technology challenges to improve operational efficiency and to manage risk. Addressing the growing need of enterprise application networks to migrate data across applications, protocols and proprietary data structures, Solix delivers an intelligent enterprise data migration solution that enables seamless data migration across enterprise applications.

- **Reduce Costs:** A structured approach is the key element of the Solix Application Sunsetting and Migration methodology with measurable performance milestones, which may be tailored to meet clients' pre-established standards. To provide an effective enterprise evolution strategy, Solix Application Sunsetting and Migration helps customers identify the right road map and strategy to migrate legacy systems at lower costs and leverage the benefits of years of migration experience on multiple platforms that reduce time to market and maximize productivity.
- **Ensure SOX Compliance:** In order to ensure compliance with regulatory mandates, enterprises need to address both data retention and data integrity requirements. With Solix Application Sunsetting and Migration, enterprises can retire legacy applications and consolidate their IT infrastructure without the risk of data loss.
- **Fast and Secure:** Solix Application Sunsetting and Migration offers rich functionality that allows fast and secure data migration to the newer versions with simplified, graphically represented data mapping and conversion capabilities. Its user-friendly and system-independent framework enables clients to switch from existing ERP applications and business processes to other applications seamlessly.

## Solix Database Archiving

Solix provides advanced database archiving for enterprise applications tightly integrated with solutions from Oracle, Baan, SAP, and others running custom applications. Customers benefit from pre-packaged archiving solutions through reduced implementation time, reduced risk through certified integrated solutions, and lower maintenance overhead because archive data is in sync and completely available through native Application user interfaces.

With Solix Database Archiving, enterprises have the tools to:

- Classify data based on its business value and regulatory impact for tiered storage and information security. Leverage Oracle certified trigger and non-trigger archiving methods or transaction-based or table-based archiving.
- Enable compliance with an archiving strategy that protects data integrity in all instances eliminating the risk of data loss while ensuring your ability to meet data retention requirements.
- Implement active archiving to ensure simultaneous access to data from the native application for more frequently accessed data and XML archiving for long term data retention needs
- Maintain seamless data access to archive data through native Oracle Applications interfaces.
- Leverage a metadata driven approach for defining data management policies, reducing overhead costs associated with data management solutions Complete integrated de-archive, space re-claimer and patch synchronization utilities to assist in data management processes

## Conclusion

When evaluating options for application retirement and data migration, take the time necessary to evaluate vendor solutions – spend time to understand what the vendors offer and how they can be used in your environment based on the type of data to be migrated and sunset and how end users may access the data.

For more information on Solix, its products and services please visit [www.solix.com](http://www.solix.com) or call (888) GO-SOLIX.

## Working with Leading Organizations Across the Globe

Solix Technologies works with organizations all over the world in manufacturing, telecom, retail, education, healthcare, financial services and government. Some of our clients include:

- Arqiva
- Dept. of Health & Human Services
- Finisar
- Forbes Marshall
- Helen of Troy
- Hindalco
- Korea Telecom
- LG Electronics,
- Lakshmi Machine Works
- Ministry of Defense
- Steris
- Helen of Troy
- Rediff
- TIBCO
- Traco

## Fast Facts

**Founded: 2001**

**Headquarters: Santa Clara, California**

### Supported Applications:

- Oracle E-Business Suite
- Oracle PeopleSoft
- Oracle JD Edwards
- BaaN
- Custom & 3rd party Applications

### Supported Databases:

- Oracle
- IBM DB2
- IBM Informix
- MySQL
- MS SQL Server
- Other RDBMS with JDBC driver support

### Hardware Platforms:

- HP-UX
- IBM AIX
- Sun Solaris
- Linux

## Our Partners:

Solix partners with the leading application and storage providers to provide integrated solutions for today's heterogeneous environments. In addition, we work with global and local resellers and system integrators located around the world.

### Technology Partners:

- EMC
- Google
- IBM
- Microsoft
- NetApp
- Oracle
- Red Hat

- SAP
- Sun Microsystems
- Sybase

### Global Resellers & System Integrators:

- IBM
- Wipro

### Local Resellers:

- 3S Soft (South Korea)
- Tier 1 Inc. (US)
- Inatech (UK)
- Graeme V Jones & Associates (Australia)



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