

A SOLIX WHITEPAPER

# HOW TO OPTIMIZE ERP UPGRADES

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## Contents

Introduction .....	1
The Benefits and Risks of Upgrades.....	1
Testing .....	3
Staffing Limitations .....	3
Maintaining Customizations.....	4
Downtime and Disruptions.....	4
Solix Mitigates the Problems.....	4
Solix EDMS Database Archiving Module.....	5
Test Data Management Module .....	6
Data Masking Module.....	7
Application Retirement.....	7
Options for Implementation.....	8

## Introduction

The climate is right for significant Enterprise Resource Planning (ERP) application upgrades across industries. End of support notices, explosions of data and continued increased functionality of these systems have created an environment convincing decision-makers to pull the trigger on these extensive undertakings.

According to a November 2011 survey of Oracle Applications User Group (OAUG) members, 80 percent were in the process of completing or planning an upgrade in the next 24 months.<sup>1</sup> An October 2012 update revealed 42 percent were still planning or in the process of an ERP upgrade.<sup>2</sup>

Yet, these same managers have noted ERP upgrades are rife with potential risks, putting the business in a precarious position. With 43 percent of those surveyed believing an upgrade is likely to take between nine and 15 months, any glitch can have a negative impact on the overall business operation. It's up to IT to ensure the business user does not suffer for the upgrade. The risks can be minimized.

## The Benefits and Risks of Upgrades

The scope and motivation for upgrades varies. According to the 2011 survey, only 23 percent of organizations planning to upgrade are looking simply to advance technology in the face of end of support notices. Almost 60 percent, on the other hand, are looking toward increased functionality from an upgrade or to even use the upgrade to transform business operations.

To make the time and investment required of an ERP upgrade cost effective, the benefits must be significant. Forty-eight percent of those surveyed in 2011 hope an ERP upgrade will reap their organization access to more functionality and improved performance. Improved user production is a wish of 38 percent, while 26 percent were looking for better scalability and standardization of business practices. A new ERP system most certainly can address many of these issues, but can also become bogged down quickly if good data management practices are not in place.

<sup>1</sup> Sponsored by Oracle, the survey was conducted in November 2011 of 327 enterprise application and business managers who are members of the Oracle Applications User Group.

<sup>2</sup> Oracle sponsored an update of the research in October 2012, with 266 enterprise application and business managers in the Oracle Applications User Group being surveyed.

Effective data management can streamline an Oracle upgrade, address the most common risks and prime the system for its most efficient use moving forward. The OAUG user study revealed the top concerns for an upgrade are testing requirements, limited staffing, maintaining all the customizations in the current ERP system and the overall downtime of the business.

*To get the best from a new ERP system, it's important to ensure good data management practices are in place.*

## Testing:

Testing data on the new ERP is the greatest concern of OAUG users in the study, with 63 percent reporting the concern. Testing during an ERP upgrade requires multiple test copies and takes significant time from the IT staff.

Test data management leverages database subsets as an alternative to full-size database cloning. Reductions in test cycle times are realized by using need-specific, focused subsets. Typical IT organizations utilize six to eight full-size database clones for testing of each application database. Databases of 1TB create a data landscape of 8TB. Test Data Management allows organizations to intelligently size subsets and reduce non-production data by as much as 70 percent.

The benefits of systematic test data management extend beyond the testing cycles of an ERP upgrade. Effective test data management will keep the size of non-production databases in check, reducing storage needs. Mass storage devices devour energy, increasing infrastructure expenses. And, should an error occur during the testing process, test data management will reduce the time to reboot the process.

## Staffing Limitations:

ERP upgrades are time and staff intensive exercises. Few IT organizations have the staff to carry out both the upgrade and the requirements of daily operations and 61 percent of respondents in the study report this concern. Ultimately, outside consultants are required. Often, this exposes sensitive data both behind and beyond the firewall to those who are not properly trained in ensuring data security. In such instances the security umbrella created for production databases most assuredly will experience breaches, putting the organization in a situation full of potential pitfalls.

Data masking secures data from those not trained to protect it. Data masking renders data unreadable by scrambling, encrypting and masking sensitive information. Yet, the data format is retained, allowing all business functions to proceed seamlessly.

Data masking and encryption rules can be applied consistently across all business uses while the data retains its integrity for all testing and training purposes. Yet, flexibility is not compromised and IT can customize the module for the needs of business users and outside vendors.

Creating these smaller subsets for the test environment also allows testing teams to work with independent data, reducing inter-dependence and facilitating faster testing cycles. The result is reduced staff effort and cost.

*The benefits of systematic test data management extend beyond the testing cycles of an ERP upgrade.*

## Maintaining Customizations:

Even upgrading ERP systems within the same software family can result in the loss of customizations created over the lifetime of the system. Fifty percent of OAUG users surveyed are concerned about having to re-implement their customizations after an upgrade.

Organizations have regularly resorted to maintaining legacy applications to ensure customizations to certain sets of data are retained. This step requires significant expense and time from IT staff and is unnecessary. When implementing an upgrade, application retirement can be utilized to allow ensure only essential data and customizations migrate to the new system. Yet, legacy data and customizations are still accessible via a generic portal application.

*The biggest potential risk of upgrades is the potential for downtime and disruption of the business operations.*

## Downtime and Disruptions:

The biggest potential risk of upgrades is the potential for downtime and disruption of the business operations. Forty-seven percent of OAUG users share this concern, according to the study. In an environment where organizations are often operating 24 hours a day, seven days a week, there is never an optimal place for downtime. The amount of data needing to be migrated to the new ERP system impacts the time of migration. Data Archiving can reduce the amount of data dramatically, while ensuring business users still have complete access to the archived data.

Database archiving relocates older, inactive, transactional data to an archive database. Compliance and business needs are maintained while removing the data from the production database. The business user, however, will retain access to all archived data.

Proper test data management will also ensure disruptions of the upgrade process are minimized, especially when done in conjunction with systematic archiving.

## Solix Mitigates the Problems

Solix Technologies has an array of solutions to mitigate the most common risks associated with an ERP upgrade and prime data to ensure the upgrade works in the most efficient and effective way. The Solix EDMS has modules for Test Data Management, Data Masking, Application Retirement and Data Archiving.

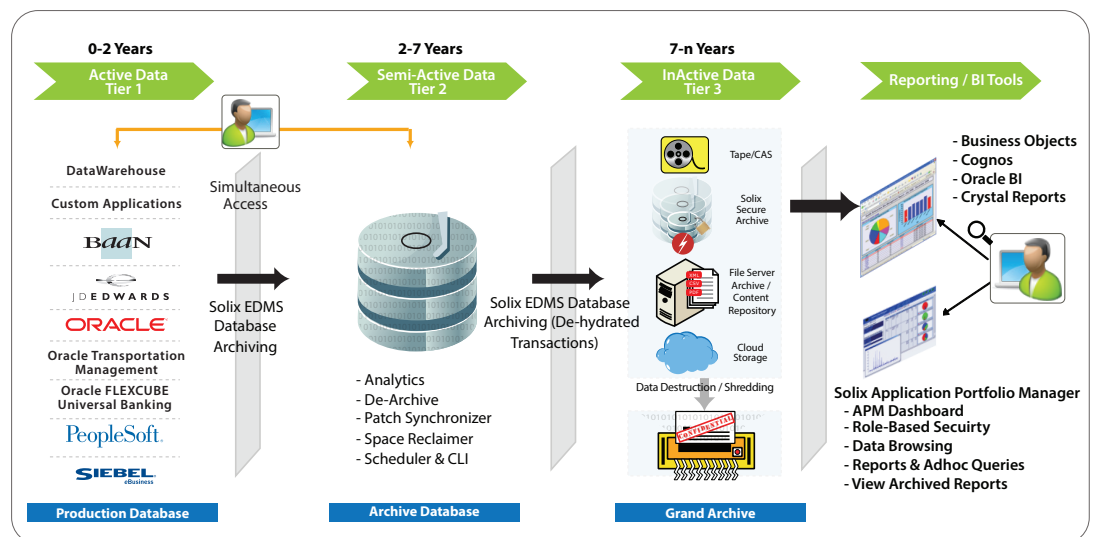
Solix solutions can be customized to address the needs of each individual organization, offering flexibility for both the organization's software and budgetary needs. Solix's team and software can be used to address specific needs or to help create transformational processes ensuring best-practices with the new ERP system.

## Solix EDMS Database Archiving Module

Database archiving can be an effective management tool to address the needs of an upgrade and ensure optimal performance of the new ERP system moving into the future. The risks of downtime and the testing process can be mitigated with the Solix archiving module. With the Solix archiving module, historical data is archived with full metadata, preserving the context of each piece of information. The resulting archive can be integrated with production data to be viewed and analyzed by the original or native application.

*Solix Enterprise Data Management Suite (EDMS) has modules for Test Data Management, Data Masking, Application Retirement and Data Archiving.*

Running on the Oracle E-Business Suite, American Tire Distributors 3TB of data made productivity suffer across the company. A planned hardware upgrade from an old Unix system to a new Linux system put the spotlight on the company's data management problems and forced a solution. Migration of the company's database during a first-run test took seven days. After much work, ATD got the migration test down to 60 hours, but the timing was still far too long for the company's comfort.



Using Solix's database archiving tool ATD reduced its database by 25 percent in its first efforts to archive only four areas: General ledger, accounts receivable, inventory, and pricing. The migration occurred in about 40 hours and the benefits were felt far beyond the hardware upgrade. ATD also saw performance improvements from the E-Business Suite.

"We see a 50 to 60 percent performance improvement in our nightly batch processing, with no SQL tuning at all," Angelic Gibson, ATD's director of IT operations told "Profit." "It's huge."

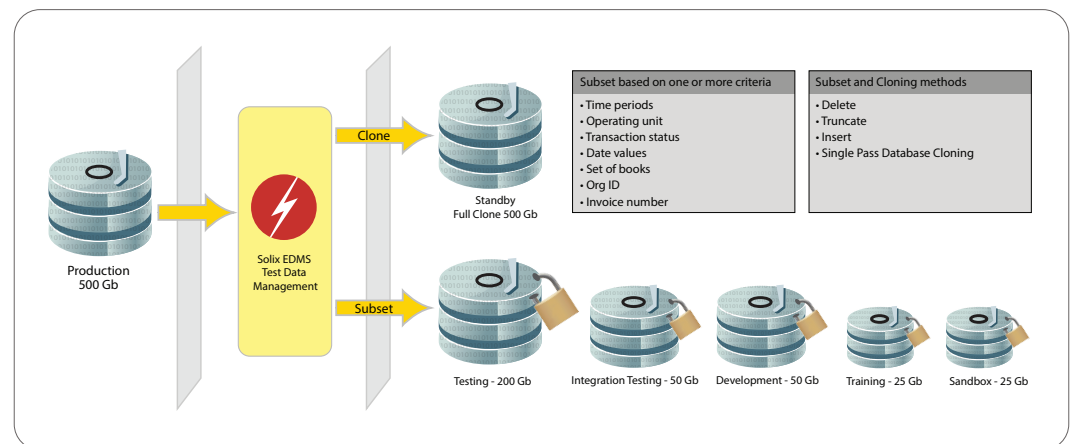
Archiving data before an upgrade allows the new ERP system to operate at its most efficient. In systems where data is already archived, Solix EDMS facilitates the upgrade of archived data to ensure continued access from the upgraded application. With 25 percent of OAUG users also concerned about the cost of necessary hardware upgrades, a data management plan including data archiving can vastly reducing the capital investment needed for expensive Tier 1 storage and larger servers.

A systematic approach to data archiving will also help organizations reap the benefits of an ERP upgrade long into the future. With better performance and improved user productivity being two of the most sought after benefits of an ERP upgrade, according to the study, data archiving — whether done before or after the upgrade — can ensure production databases do not overload with unnecessary information.

*Using Solix’s database archiving tool, American Tire Distributors (ATD) reduced its database size by 25%.*

## Test Data Management Module

Combined with the archiving module, The Solix Test Data Management module can significantly decrease the downtime of an ERP upgrade. Testing is a critical part of the upgrade process, however, the size of those test databases vastly impacts the process. The Solix EDMS Test Data Management module brings the efficiencies of automation to the testing process, while also allowing organizations to customize testing according to their specific business flows. Creating localized test data instances allows operations to minimize the amount of data and ensure specific needs are addressed.



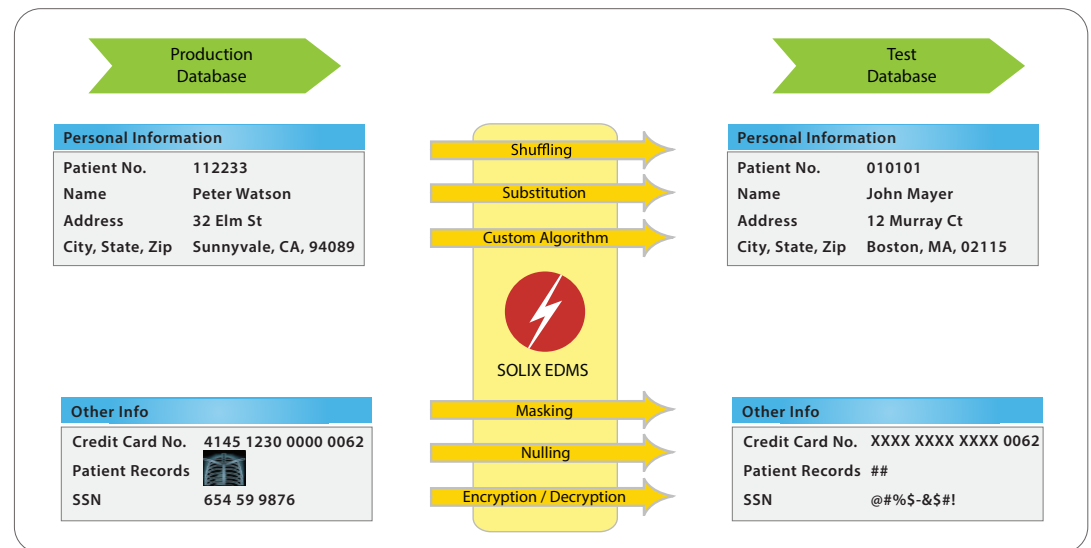
process. The more localized and specific testing instances are, the minimal the impact on personnel and time if and when an error occurs. Efficient test data management means fewer people will idle for less time. The Solix Test Data Management tool accomplishes this through secure, automated, single-pass cloning with subsetting to reduce clone sizes based on user-defined requirements. The right amount of data is used for the testing process, ensuring less intervention, fewer potential errors and less exposure to security breaches.

## Data Masking Module

The Solix EDMS Data Masking module will provide all of an organization's data with needed security during an upgrade. OAUG respondents report limited staffing is a major concern during an ERP upgrade with 75 percent of respondents saying consultants will be brought in to assist.

Balancing the staffing issues an upgrade creates with the need to ensure all data is secure from unauthorized eyes need not be an expensive proposition. The Solix EDMS data masking module renders data unreadable by scrambling, encrypting and masking sensitive information. Yet, the Solix EDMS ensures the data format is retained, allowing all business functions to proceed seamlessly.

*The Solix EDMS Data Masking module will provide all of an organization's data with needed security during an upgrade.*



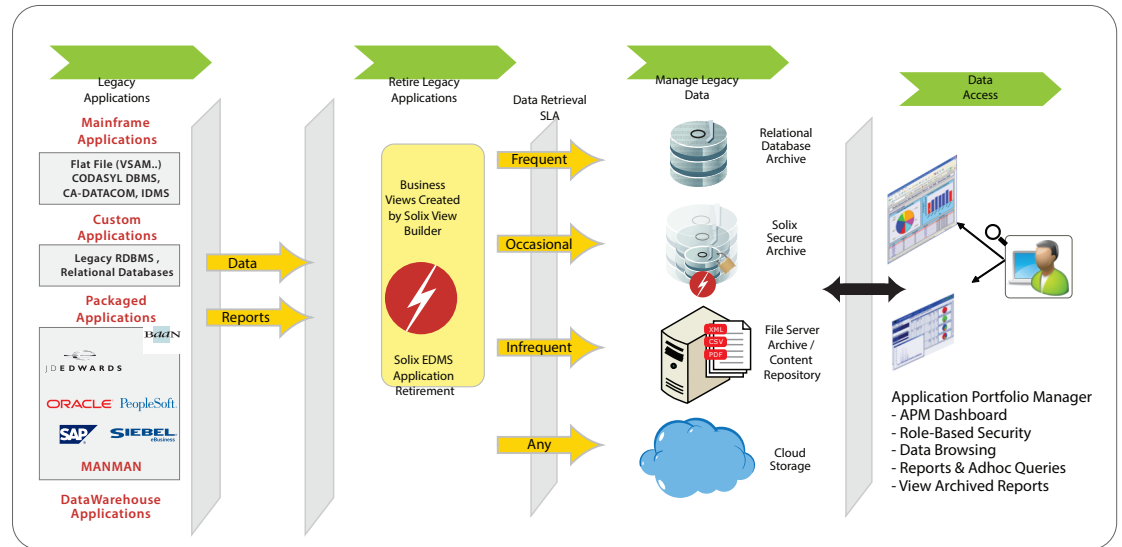
Solix EDMS uses application awareness and a vast library of algorithms to obscure all personal and/or sensitive information, while creating a valid environment for application testing. Data masking and encryption rules can be applied consistently across all business uses while the data retains its integrity for all testing and training purposes. Yet, flexibility is not compromised and IT can customize the module for the needs of business users and outside vendors.

## Application Retirement

The Solix EDMS Application Retirement Module ensures businesses get the most out of an ERP upgrade, while maintaining customizations and eliminating the costs of maintaining legacy systems. Forty-five percent of those surveyed seek the new functionality an upgrade allows. However, those same organizations have invested significant time and money into creating customizations for their specific business purposes. Sacrificing customizations for new functionality is unnecessary, as is the time needed to re-implement those customizations in the new ERP.



*Honeywell, a leading industrial manufacturer, modernized its application platforms and used Solix EDMS Application Retirement to retire its inactive legacy data.*



The Solix EDMS Application Retirement preserves the full metadata and application context of data in legacy applications. IT no longer has to maintain the legacy application environment and business users still have access to the data while utilizing the full power of the new ERP system. Using Solix EDMS Application Retirement frees significant space on servers, significantly reducing operating budgets and increasing operational efficiencies.

Honeywell, a leading industrial manufacturer, modernized its application platforms and used Solix EDMS Application Retirement to retire its inactive legacy data. “Solix allows us to retire our legacy application data and still provide access to that data to our end users,” said Kim Shockey, Director of Applications, for Honeywell Automated Control Systems.

## Options for Implementation

Solix has partnered with Oracle for more than 15 years, delivering the most comprehensive and customizable solutions to ILM. The Solix EDMS can be used as a powerful suite or as individual modules.

Solix never delivers a one-size-fits-all solution. The Solix Team has experts ready to address customer needs from IT, business use and financial perspectives. The Solix team will work to understand organizational needs and then implement the solution, allowing IT to focus on the upgrade. The Solix team can deliver focused and timely responses because of its detailed understanding of the Oracle ERP systems and its deep knowledge of business processes.

Organizations seeking transformational ILM to complement an ERP upgrade can engage Solix in a more detailed analysis of all data management practices and explore the full power and potential of the Solix EDMS.

Regardless of the desired outcomes, Solix solutions can be delivered under a variety of licenses, including perpetual, term or as managed services in a pay-as-you-go model. The EDMS works with a cloud — a private or third-party cloud — or on the organization's existing infrastructure ensuring the satisfaction of IT, business users and the finance department.

With the cost of ERP upgrades expected to be at least \$500,000 for 34 percent of OAUG users, it's incumbent on organizations to maximize those upgrades for the longest possible time. The current business climate demands businesses run efficiently and responsibly. The array of Solix solutions available in the EDMS ensure organizations can do exactly this.

## ABOUT SOLIX TECHNOLOGIES

Solix Technologies, Inc., a leading provider of Enterprise Data Management (EDM) solutions, helps businesses improve application performance, reduce storage costs, and meet compliance and data privacy requirements by achieving Information Lifecycle Management (ILM) goals. The Solix Enterprise Data Management Suite (Solix EDMS) enables organizations to implement Database Archiving, Test Data Management (Data Subsetting), Data Masking and Application Retirement across all enterprise data. Solix Technologies, Inc. is headquartered in Santa Clara, California and operates worldwide through an established network of value added resellers (VARs) and systems integrators.

For more information on how you can benefit from our offerings, write to us at [info@solix.com](mailto:info@solix.com)

*Organizations seeking transformational ILM to complement an ERP upgrade can engage Solix to unlock the full potential of their enterprise data management.*



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