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Best Practices for Upgrading PeopleSoft Enterprise

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Best Practices for Upgrading PeopleSoft Enterprise

Introduction

As part of Oracle's commitment to Applications Unlimited, PeopleSoft Enterprise continues to evolve, offering greater value and providing new advantages for your business. Upgrading PeopleSoft Enterprise is key to realizing the maximum return on your Oracle investment.

Oracle's PeopleSoft Enterprise applications have evolved over time, and Oracle's commitment to customers, this suite of applications, and creating best-in-class products remains steadfast. The PeopleSoft Enterprise product has expanded significantly in functionality, scalability, usability, and reduced cost of ownership over the past few releases, including significant leaps made in the recent PeopleSoft Enterprise 9.1 Feature Pack release.

This white paper guides you through the major areas to consider in determining when an upgrade is appropriate for your organization. Based on your current release of PeopleSoft Enterprise software, it reviews the most common upgrade paths and aims to provide you with a framework for determining the best possible upgrade agenda for your organization. Furthermore, it also includes information about future upgrade options to the next generation of application software currently branded as Oracle Fusion Applications. Combined, Applications Unlimited and Oracle Fusion Applications give you the flexibility that you need in creating an upgrade plan that maximizes the value of your PeopleSoft Enterprise investment.

There are many reasons to consider upgrading. For example:

- Upgrading may provide access to new functionality and software applications that can help keep your organization well positioned to meet your business objectives through leveraging the latest technology
- In an increasingly rigorous regulatory compliance environment, upgrading may facilitate compliance at a lower cost through retiring customizations and deploying standard processes across your organization
- Upgrading will allow you to leverage the latest performance and usability enhancements, enabling you to increase the efficiency of your applications and your business
- You may need to upgrade to remain eligible for the highest levels of product support

In evaluating any upgrade, there are many factors to consider such as support time frames, functional capabilities, technical infrastructure, and underlying business needs. These factors are often complex and interrelated—all of which adds to the importance of determining the most appropriate upgrade strategy.

To help you make an informed decision, this paper outlines our plans for supporting and advancing PeopleSoft Enterprise as well as its successor, Oracle Fusion Applications.

Upgrade Overview

Although an upgrade project is similar to an implementation project, the upgrade project can be significantly more efficient because it leverages your previous implementation efforts and outputs.

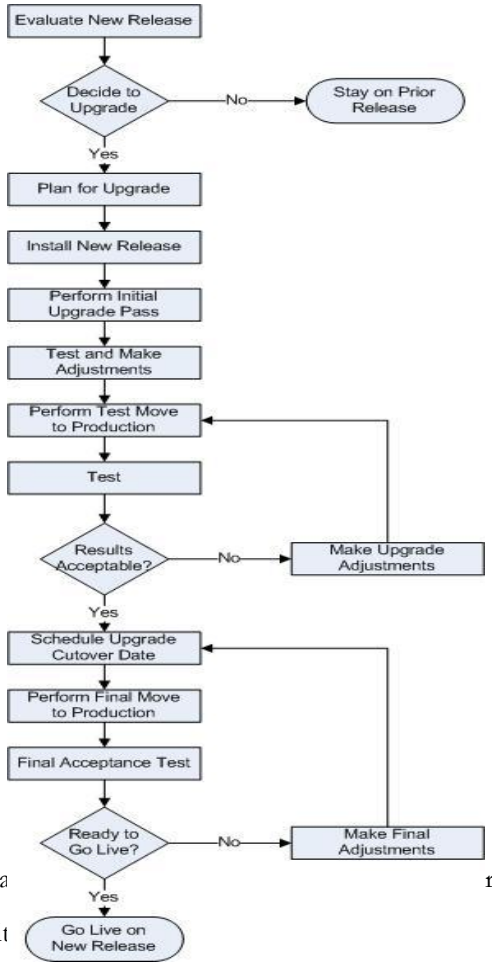
Before pursuing an upgrade, it is imperative that you fully understand the upgrade process, potential upgrade paths, and most importantly your criteria for considering an upgrade of your PeopleSoft Enterprise solution.

The Upgrade Process

An upgrade project is in many respects similar to an implementation project; however, upgrade projects can be significantly more efficient than implementations because they leverage your previous implementation efforts and outputs. In addition, upgrades can be executed within the current change management system used by your organization.

Within the upgrade project, there are several key areas of work that begin with project definition and continue through the training of personnel on the new solution.

The following graphic presents the standard upgrade process at a high level:



The three ma roject include:

1. The Init
2. The Test Move to Production Pass(es)

3. The Final Move to Production Pass

The compare between the New Release and Copy of Production is performed during the Initial Pass only. The degree of analysis that follows the compare depends on the number and complexity of customizations in the Copy of Production. In the Move to Production passes, the compare and analysis steps are replaced by export and import scripts that more efficiently incorporate the new release modified objects from the Upgraded Copy of Production into your New Copy of Production.

Initial Pass

The first pass is called the "Initial Pass." In this pass, you create a copy of your production database referred to as the "Copy of Production." You then install the Demo database, delivered with the new PeopleSoft product release. With the compare analysis complete, the new release is incorporated into the Copy of Production to create the first "Upgraded Copy of Production." In the Initial Pass, the Demo database is the Source for all new release objects and system data, and the Copy of Production is the Target.

Test Move to Production Pass

After completing the Initial Pass, you begin a series of "Test Move to Production Passes." In these passes, you create a new copy of your production database called the "New Copy of Production." Using the Upgraded Copy of Production as the Source for all new release objects and system data, the new release is incorporated into the New Copy of Production to create a new "Upgraded Copy of Production." In the Test Move to Production Passes, each iterative New Copy of Production is the Target.

Repeat the Test Move to Production Pass until you are comfortable with the output of your functional business decisions and the pass runs smoothly against a current copy of your production database. Create an updated New Copy of Production based on your most recent production data for each pass.

Final Move to Production Pass

When you are ready for the "Final Move to Production Pass," you freeze the production database and the new release is incorporated into the production database itself. In this Final Move to Production Pass, the most recent successful output of the Test Move to Production Pass (the Upgraded Copy of Production) is the Source and the production database is the Target.

Examining Your Upgrade Criteria

There are several areas to consider as you examine your upgrade options including application functionality, technological enhancements, operational considerations, and support availability.

Application Functionality

When considering an upgrade, most organizations begin with a critical assessment of the new capabilities and enhancements to current features provided in the new release. A firm grasp of these new capabilities and enhancements is essential to evaluating the value to be gained through your organization's investment of time and resources.

In many instances, new capabilities can offer several productivity advantages; increased business value and lower operational costs (for example, through retirement of customizations). In evaluating any new PeopleSoft Enterprise release, think about your current environment and whether the version in place meets the needs of today as well as the demands of your business for the next three to five years.

Release notes are the best starting point for reviewing the technical upgrade requirements.

Release notes are the best first step to understanding the major changes included in the new release. Also, these documents provide valuable references to other documentation that can help guide you in evaluating and implementing the new release into your organization. This information is found on the My Oracle Support web site for HCM, FSCM, CRM, ELM, EPM and Portal applications

Your Oracle Consulting or Application Sales Manager can help you identify new features, functionality, and processes that may provide value to your organization.

Technological Enhancements

PeopleSoft Enterprise 9 User Productivity Kit content can save significant time and effort when analyzing business process enhancements. Once the upgrade project is underway, the same content can be leveraged again to efficiently manage test script and training plan creation.

As you evolve your application upgrade strategy, you should consider your technical infrastructure requirements, including client architecture, application server, Web services, and database options. Consider what has changed and what will change in terms of platform support, and also be aware of infrastructure enhancements that may provide additional benefits to your production environments. For example, by choosing to leverage current Oracle Fusion Middleware and database options, you could experience substantial benefits by having your database and application server running on a single platform.

PeopleSoft Enterprise has traditionally afforded several choices of technical infrastructure, and this flexibility continues to be available. In the past year, we expanded the choices again, with the additional infrastructure option of Oracle Fusion Middleware for your PeopleSoft applications.

Oracle's industry-leading Lifetime Support Policy of your infrastructure configuration is well documented in the document *Lifetime Support Policy: Coverage for Applications and Server Technologies*. Regardless, you should always confirm your specific infrastructure components when preparing for your upgrade.

Operational Considerations

Oracle continually seeks to improve your return on investment by leveraging technology to reduce the resources required to operate and maintain your enterprise solutions. This means customers like you can install and implement software more quickly, simplify upgrades, receive real-time support and performance diagnostics, and achieve robust integration with other e-business software—delivering quantifiable benefits.

The PeopleSoft Enterprise 9.1 release takes these benefits to the next level. Oracle continues to deliver improvements that will further reduce implementation costs, enhance usability, and increase supportability.

If you are running multiple instances of the PeopleSoft application, your upgrade analysis should examine the value of incorporating instance consolidation into the upgrade project.

For organizations running on more than one instance of PeopleSoft, the cost, risk, and operational value of instance consolidation should be included in your upgrade value analysis.

Support Availability

A key reason for pursuing upgrades is to ensure continued access to the robust technical support that PeopleSoft application users have come to expect. As part of our Applications Unlimited commitment to our customers, Oracle provides continued enhancements to the current Oracle applications beyond the delivery of Oracle Fusion. Oracle is committed to supporting customer investments in technology platforms for these applications as well as their certified infrastructure products (hardware, operating systems, databases, and middleware). Details can be accessed at the following location: oracle.com/support/library/data-sheet/oracle-lifetime-support-policy-datasheet.pdf.

With the guaranteed support announced through the Oracle Lifetime Support initiative, Oracle customers can remain on their PeopleSoft Enterprise applications and be confident of support as long as they remain aligned with the currently supported platforms. Oracle is providing more visibility into product roadmaps, and is helping customers derive continual success from their current applications by delivering dedicated, world-class development and support for years to come.

When examining your infrastructure support availability, be sure to include an analysis of your hardware and operating system end of life support dates, if any.

Identifying Your Upgrade Path

In addition to the factors just discussed, you may also want to consider the amount of time needed to upgrade and ensure you will have the full support and coverage for your solution. The timing of the release availability should not significantly alter your upgrade plans; instead, as mentioned above, your upgrade decision should be based on the ability of your currently deployed release to support your business in the near-to-medium term.

It is important to note that Oracle Fusion will evolve as an optional "path" to the future, rather than a "destination" because your PeopleSoft Enterprise solution will continue to evolve over time adopting Oracle Fusion technologies as they become available. Portions of Oracle Fusion technology are already partially available in the new PeopleSoft Enterprise 9.1 releases as well as planned into the future releases of PeopleSoft Enterprise applications.

Whether or not you are planning to upgrade to Oracle Fusion Applications in the next few years, you should still factor the upgrade path to Oracle Fusion Applications into your plans in order to minimize your future cost and risk should you later discover that this next-generation product suite best satisfies your evolving business objectives. Based on customer feedback, Oracle is planning to deliver processes to upgrade directly to Oracle Fusion Applications from

PeopleSoft Enterprise 8.8 and later releases. In short, while the business benefits of running on Oracle Fusion Applications may be substantial, upgrades to Oracle Fusion will be entirely optional given the continued commitment of Applications Unlimited, and your own unique business objectives. Still, as needs change rapidly in today's dynamic business environment, it is wise to position yourself for the greatest flexibility in your future upgrade options.

The following sections show examples of upgrade paths for each release of PeopleSoft Enterprise software. We expect that customers will be on these releases for several years, and we have therefore created a general set of recommended upgrade paths. While each situation is unique, the upgrade path recommendations should assist in providing you with a basic framework for discussion with your Oracle account representative.

Customers on PeopleSoft Enterprise HCM 8.9 and Later

Customers on PeopleSoft Enterprise HCM 8.9 or later releases will have full support including access to newly created patches and fixes, upgrade scripts to the most current software release. As of this document the PeopleSoft Enterprise Upgrade Guides have been released on the My Oracle Support Web site for your review and assessment:

Find your specific link and review the processes and documents required to upgrade your organization to the latest Release of Software. For HCM there is an Enterprise PeopleSoft HCM 9.1 Information Center link for additional help.

Here is a quick glance of the supported upgrade paths available to PeopleSoft Enterprise HCM 9.1 Feature Pack.

- Upgrading from PeopleSoft Enterprise HCM 9.0 to PeopleSoft Enterprise HCM 9.1 Feature Pack.
- Upgrading from PeopleSoft Enterprise HCM 8.9 MP 1 to PeopleSoft Enterprise HCM 9.1 Feature Pack.
- Upgrading from PeopleSoft Enterprise HCM 8.8x to PeopleSoft Enterprise HCM and PeopleSoft Enterprise Campus Solutions 9.0 Maintenance Pack 5.
- Upgrading from PeopleSoft Enterprise Learning Solutions 8 SP1 to PeopleSoft Enterprise HCM and PeopleSoft Enterprise Campus Solutions 9 Maintenance Pack 5 (Note this is a double step path 8 SP1 – 8.9 / 8.9 – 9.0MP5).
- Upgrading from PeopleSoft Enterprise HCM 8.8x to PeopleSoft Enterprise HCM and PeopleSoft Enterprise Campus Solutions 9.1 Feature Pack, including Pay/Bill Management

Remember to periodically check the My Oracle Support Web site as Oracle updates these files on an ongoing basis.

Customers on PeopleSoft Enterprise FMS/SCM (Financials/Supply Chain) 8.9 and Later

Customers on PeopleSoft Enterprise FMS/SCM (including ALM, ESA, and SRM applications) 8.9 or later releases will have full support including access to newly created patches and fixes, upgrade scripts to the most current software release. As of this document the PeopleSoft Enterprise Upgrade Guides have been released on the My Oracle Support Web site for your review and assessment:

Find your specific link and review the processes and documents required to upgrade your organization to the latest Release of Software. For FSCM there is an Enterprise PeopleSoft FSCM 9.1 Information Center link for additional help.

Find your specific link and review the processes and documents required to upgrade your organization to the latest Release of Software.

Here is a quick glance of the supported upgrade paths available to PeopleSoft Enterprise FMS/SCM 9.1 Feature Pack.

- Upgrading from PeopleSoft Enterprise FMS/SCM 9.0 to PeopleSoft Enterprise FMS/SCM 9.1 Feature Pack.
- Upgrading from PeopleSoft Enterprise FMS/SCM 8.9 to PeopleSoft Enterprise FMS/SCM 9.1 Feature Pack.
- Upgrading from PeopleSoft Enterprise FMS/SCM 8.8x to PeopleSoft Enterprise FMS/SCM 9.1 Feature Pack.
- Upgrading from PeopleSoft Enterprise FMS/SCM 8.4x to PeopleSoft Enterprise FMS/SCM 9.1 Feature Pack. (Note this is a double step path 8.4 – 9.0MP5 / 9.0 – 9.1FP).
- Upgrading from PeopleSoft Enterprise Staffing Front Office 8.8 and FMS/SCM 8.8x to PeopleSoft Enterprise FMS/SCM 9.1 Feature Pack.
- Upgrading from PeopleSoft Enterprise Staffing Front Office 8.4 and 8.8 to PeopleSoft Enterprise FMS/SCM 9.1 Feature Pack. (Note this is a double step path 8.4 – 9.0MP5 / 9.0 – 9.1FP).

Remember to periodically check the My Oracle Support Web site as Oracle updates these files on an ongoing basis.

Customers on PeopleSoft Enterprise CRM 8.9 and Later

Customers on PeopleSoft Enterprise CRM 8.9 or later releases will have full support including access to newly created patches and fixes, upgrade scripts to the most current software release. As of this document the PeopleSoft Enterprise Upgrade Guides have been released on the My Oracle Support Web site for your review and assessment:

Find your specific link and review the processes and documents required to upgrade your organization to the latest Release of Software. For CRM there is an Enterprise PeopleSoft CRM 9.1 Information Center link for additional help.

Find your specific link and review the processes and documents required to upgrade your organization to the latest Release of Software.

Here is a quick glance of the supported upgrade paths available to PeopleSoft Enterprise CRM 9.1:

- Upgrading from PeopleSoft Enterprise CRM 9.0 to PeopleSoft Enterprise CRM 9.1.
- Upgrading from PeopleSoft Enterprise CRM 8.9 to PeopleSoft Enterprise CRM 9.1.
- Upgrading from PeopleSoft Enterprise CRM 8.8x to PeopleSoft Enterprise CRM 9.1.
- Upgrading from PeopleSoft Enterprise CRM 8.4x to PeopleSoft Enterprise CRM 9.1 (Note this is a double step path 8.4 – 9.0MP5 / 9.0 – 9.1).
- Upgrading from PeopleSoft Enterprise Advanced Configurator 3.5J, 8.4, 8.8, or 8.9 to PeopleSoft Enterprise Advanced Configurator 8.9 or 9.1

Remember to periodically check the My Oracle Support Web site as Oracle updates these files on an ongoing basis.

Customers on PeopleSoft Enterprise EPM 8.9 and Later

Customers on PeopleSoft Enterprise EPM 8.9 or later releases will have full support including access to newly created patches and fixes, upgrade scripts to the most current software release. As of this document the PeopleSoft Enterprise Upgrade Guides have been released on the My Oracle Support Web site for your review and assessment:

Find your specific link and review the processes and documents required to upgrade your organization to the latest Release of Software. For EPM there is an Enterprise PeopleSoft EPM 9.1 Information Center link for additional help.

Find your specific link and review the processes and documents required to upgrade your organization to the latest Release of Software.

Here is a quick glance of the supported upgrade paths available to PeopleSoft Enterprise EPM 9.1:

- Upgrading from PeopleSoft Enterprise EPM 9.0 to PeopleSoft Enterprise EPM 9.1.
- Upgrading from PeopleSoft Enterprise EPM 8.9 to PeopleSoft Enterprise EPM 9.1.
- Upgrading from PeopleSoft Enterprise EPM 8.8x to PeopleSoft Enterprise EPM 9.1.

Remember to periodically check the My Oracle Support Web site as Oracle updates these files on an ongoing basis.

Customers on PeopleSoft Enterprise ELM 8.9 and Later

Customers on PeopleSoft Enterprise ELM 8.9 or later releases will have full support including access to newly created patches and fixes, upgrade scripts to the most current software release. As of this document the PeopleSoft Enterprise Upgrade Guides have been released on the My Oracle Support Web site for your review and assessment:

Find your specific link and review the processes and documents required to upgrade your organization to the latest Release of Software.

Here is a quick glance of the supported upgrade paths available to PeopleSoft Enterprise ELM 9.1:

- Upgrading from PeopleSoft Enterprise ELM 9.0 to PeopleSoft Enterprise ELM 9.1.
- Upgrading from PeopleSoft Enterprise ELM 8.9 to PeopleSoft Enterprise ELM 9.1.
- Upgrading from PeopleSoft Enterprise ELM 8.8x to PeopleSoft Enterprise ELM 9.1.

Remember to periodically check the My Oracle Support Web site as Oracle updates these files on an ongoing basis.

Treat upgrades as combined business and technology projects to get the most value out of your Oracle investment.

Upgrade Best Practices

In preparing to successfully upgrade, there are multiple considerations to include in your upgrade planning and upgrade execution efforts. Within this paper, Oracle has gathered tips and techniques from hundreds of experienced systems managers, consultants, and partners. These recommendations are intended to help you learn from others and manage a successful upgrade project.

General Recommendations

The following general considerations should form the backbone of your upgrade initiative.

Tip #1—Determine Your Upgrade Path

Refer to the system requirements and supported platforms on the My Oracle Support Web site to determine supported upgrade paths for major releases. Verify whether you can upgrade directly to the latest release or whether you must first upgrade to a previous release before moving to this target release. In addition, evaluate the complexity of your upgrade effort based on the number of modules implemented, number of customizations, number of integration points, number of interfaces, total number of scripts, and number of user interface scripts and whether you intend to incorporate additional languages. Finally, determine the metrics and cost associated with each aspect of the upgrade. Each consideration should be addressed through a thorough upgrade assessment.

Tip #2—Treat Your Upgrade Activity as a Formal Company Project

The single best predictor of upgrade success may be the planning and project management rigor invested. A structured approach for managing the tasks, resolving issues, and measuring progress is absolutely critical. Equally important is a clearly defined and documented project scope. A defined scope is critical to project measurements necessary for time and cost containment. Experience has demonstrated that clear issue definition, strong project management, and executive ownership are critical success factors to a well-performing project effort.

If your organization has good project management expertise in house, you have an important asset to leverage. However, if this expertise is not readily available, it should be acquired early on in the project to ensure proper guidance and controls are in place. In either case, you will need someone with experience managing technical projects who can also help you anticipate and manage the effects of this initiative on other parts of the organization including end users, managers, and executives.

Tip #3—Use Change Management Appropriate for an Upgrade

During an upgrade, it is imperative to freeze metadata and system data in your production environment. With respect to the new release, ensure all relevant

patches available are applied appropriately. There are two types of new release patches to manage throughout the upgrade project: "required for upgrade" patches and "regular product" patches. For each upgrade pass, required for upgrade patches only are applied to your upgrade environment. For each user acceptance test rollout or environment, apply regular product patches to the test environment only and never to the upgrade environment. Failure to appropriately manage these different change management requirements can result in upgrade step failures and unexpected user acceptance test results.

Once you have addressed this consideration, you should proactively search for issues throughout your upgrade effort and schedule relevant updates until you reach a go/no-go milestone. At this point, you should enforce a new release content freeze to stabilize the environment. For information on relevant patches, periodically consult the My Oracle Support Web site.

Tip #4—Build an Upgrade Team with Broad and Complementary Skills

Several different skill sets will be necessary to successfully upgrade your system. The following list details recommended roles that should be staffed within an upgrade project team. Note that a steering committee is critical to success. Creation of an active and interested steering committee is an imperative because critical business decisions must be effectively made and dealt with throughout the project. Furthermore, project failures are often traced to the lack of an effective governance body.

A typical upgrade team should include the following members:

- Steering committee
- Business owner of the application (such as the CFO)
- Application data owner
- Key user group representatives
- Dedicated project manager
- Technical functional lead
- PeopleSoft administrator
- Database administrator
- Technical change management owner/release coordinator
- Operating system administrator(s)
- Testers—both technical and functional
- Technical upgrade specialist(s)
- Organizational change management/training lead

Tip #5—Utilize Peer and Oracle Resources

Most organizations sponsor upgrade projects infrequently, so it is important to leverage the experiences of others as much as possible.

Use these links to gather information from Oracle and interact with other users of PeopleSoft Enterprise.

- My Oracle Support Communities:
  https://communities.oracle.com
- Oracle Open world Presentation Library:
  http://www.oracle.com/technetwork/database/options/spatial/oow10-idx-177286.html
- OAUG
  http://oaug.org/
- OHUG
  www.ohug.org
- Oracle User Group:
  OracleUserGroup_ww@oracle.com
- Higher Education User Group

  http://www.heug.org/
- Regularly check the My Oracle Support web site

Tip #6—Decide When to Change or Add Business Processes

In many cases, there should be functionality in the release being evaluated that will help your business improve processes and automate tasks. This can be a small enhancement to business processes you are already using, or larger changes such as the adoption of a new module. One critical decision for your upgrade project is whether you will implement the new functionality as part of the upgrade, or upgrade your current processes without change, and implement new functionality as a follow-on project.

Generally, implementing your existing processes in a new system can be a way to mitigate risk in the upgrade project. However, your business realities may preclude this approach, especially if the updated processes native in the software can markedly improve operations. For example, the business may be driving to take advantage of new capabilities as quickly as possible, or it may be more appropriate to modify processes and engage in a coordinated training effort to increase user adoption of the new solution.

By carefully weighing the pros and cons of these approaches, you can choose the best strategy for your organization.

Tip #7—Plan for Upgrade Tuning

Another critical area that should be considered is the performance tuning of your new system. Tuning your production upgrade scripts can significantly reduce downtime during the final stages of your upgrade. Examples of upgrade tuning include eliminating SQL statements that do not affect any of your data, executing long-running SQL statements in parallel, and creating and altering tables in parallel.

Take advantage of the expertise of an Oracle consultant who has experience tuning your new release to ensure you get the most from your infrastructure, even if you have the expertise to execute other areas of the project yourself. These experts are quite specialized in their field, so it makes sense to have a source identified to prevent last minute scrambling Your Oracle Consulting Director is a great source for this type of discussion around resources and timing.

Oracle rigorously tests each supported upgrade path for technical and functional accuracy and for optimized performance. The most productive performance testing is completed on customer data. Whenever possible, Oracle's upgrade development experts perform detailed analysis on customer databases to tune the conversion code. To participate in the Customer Database program, contact your Oracle account manager.

Tip #8—Get Current Product and Upgrade Information

Make sure that you are using available Oracle resources to help you gather current information for your project, and work with Oracle Support for critical case management throughout your conversion timeframe. Oracle has increased focus on assembling assets to help customers with upgrades and leveraging these resources will increase your ability to upgrade smoothly.

Oracle maintains several resources to ensure that you obtain the most relevant information pertinent for your upgrade initiative. Several outstanding resources can be located on publicly available Oracle systems. In addition, upon product general availability, each major Application pillar will post related upgrade information as a good starting point for all types of upgrade information.

Finally, make sure you get the most current documentation available. Oracle provides several types of documentation to help you navigate a successful upgrade project. These materials can be accessed from the My Oracle Support web site.

Tip #9—Escalate and Resolve Problems as Appropriate

Use Oracle Support if you believe application issues are being experienced. Train your first line staff to log cases early and as completely as possible, including appropriate trace files, environment information, and highlighting business and technical milestone dates helpful for determining case prioritization. The Global Support Center staff and your Account Team can help in this area.

To ensure that your project progresses as smoothly as possible, Oracle encourages you to escalate Priority 1 issues (P1) as early as possible. These issues are typically

on the critical path for your go live, and getting the right focus on their resolution early will give you the best chance of staying ahead of schedule. Depending on several factors including your customization, issue complexity, and more, an escalated issue can take appreciable time to resolve with a fully tested solution, so the earlier the process is started, the better. P1 cases should always be logged via the My Oracle Support Web site to ensure complete case detail, but the best practice is to follow-up with a call to our Helpdesk to ensure the most efficient follow-through.

Even when you encounter non-critical issues (non-P1s), it is recommended to log cases via the My Oracle Support Web site. Cases logged in this way are often resolved faster than calls into the Support Center. This is due, in part, to the details you can provide online:

- Detailed description of the issue in your own words
- Clearly articulated priority and sense of urgency
- Trace files, screen shots, log files, and other relevant information to help the analyst move quickly on your issue
- Associating a single case with a single issue

Project Initiation Considerations

There are a number of things that you can do as your project begins, or even before it formally kicks off, which will ensure that the project has a proper foundation and is well positioned for success.

Tip #10—Prepare the Organization

As you enter the initial stages of an upgrade project, engage the entire affected organization to help them prepare for the work ahead and the changes they will experience in their jobs. Obtain formal buy-in from the stakeholder organizations and kick off the project in a face-to-face meeting. Formality, visibility to upper management, and team building can be key aids to securing the cooperation and problem solving help you will need as the project progresses.

These discussions should include both the business impact of the change and the associated change schedule. For example, secure agreement on all business blackout periods necessary for system changes.

Tip #11—Ensure the Quality of Your Data

One of the key steps in preparing for a successful upgrade is ensuring that your data is accurate and complete. You should have standard practices to handle duplicate records, verify data integrity, and ensure the overall health of your data. The time before an upgrade is an important time to review what practices are in place or need to be created to ensure that your data is relevant and reliable.

In like fashion, it is recommended that you complete a detailed review of your current reporting strategy prior to the upgrade. A clearly stated policy of reporting preference (e.g.; Web versus paper) with a goal toward report reduction or consolidation can improve the efficiency of your operations, promote cost reductions, and minimize report maintenance.

Tip #12—Inventory Your System

All configuration elements of your enterprise system should be inventoried and the current configuration items (versions) should be copied and stored for technical change management control.

Upgrading is analogous to moving; before starting, you have to make sure you identify where all your belongings are and that they are being handled appropriately. Early in your project, be diligent in gathering this information through completing a preliminary upgrade questionnaire. Among the key considerations to include in your inventory process should be:

- Customizations, extensions, and modifications
- Localizations
- Interfaces, API's, and integrations
- Third-party products
- Hardware
- Software releases and patches, including operating system, database, and PeopleSoft Enterprise applications

Another important step is to carefully review the application Audit Reports (dddaudit, sysaudit, alteraudit) that are run at the beginning and end of each upgrade pass. Reviewing and resolving issues in these reports helps to prevent problems when processing data through the conversion (see "Ensure the Quality of Your Data" above).

Tip #13—Adopt Most Current Developmental Toolsets

Whenever possible, be sure to adopt the latest available PeopleSoft toolsets, including Application Designer, DataMover, and Change Assistant. This toolset designation can be found in the Upgrade database on the My Oracle Support Web site for your particular upgrade path. Please refer to the document titled *Getting Started on Your PeopleSoft Upgrade* on My Oracle Support. Upgrading your PeopleTools should be treated just like a standard upgrade project with the appropriate planning and testing cycles.

Tip #14—Prepare a Go Live Checklist

Once you have completed the initial planning, create a checklist of criteria to guide the ultimate deployment of the upgraded solution. The planning activities should allow you to develop a robust checklist to assess appropriate "go/no-go" decision

points. Creating this checklist as soon as possible is a good way to organize project goals, validate your plan, and identify your success criteria before the pressure is on to complete the project. This list should be reviewed 30 days before go-live to ensure progress is sufficient to complete in time.

Tip #15-Understand and Mitigate Project Risks

Early in the project a risk analysis should be undertaken to determine project risks such as resource contention, other projects going live at the same time, and so on. For risks that have a high probability of occurring and have a large impact, specific mitigation plans should be developed. These plans describe, in advance, what actions to take if the risk becomes reality. The analysis and plans need to be reviewed on a regular basis throughout the project.

Look for key points of failure, especially in the area of resource loading for your technical and business specialists. If you lack bench strength in any particular areas, develop a plan to supplement and/or back up critical personnel.

Preparing Your Technical Environment

While many of the activities required for a successful upgrade project involve end users and net change for the applications, you must also manage the changes to your technical environment carefully.

Tip #16—Evaluate Your Architecture

Microsoft SQL Server customers: Microsoft SQL Server 2005 is required when upgrading to PeopleSoft Enterprise 9 on PeopleTools 8.48 or higher.

There are several key technological decisions to make that will affect your project. Changing any part of the architecture increases the complexity of the upgrade project, and careful planning is required to determine when to make this change as well as account for the technical work required. If you are not planning on changing architecture (although it may be mandatory for you to change your architecture depending on the version of the applications you are on currently), it is important to clarify this throughout your organization and create consensus to minimize disruptions. You should plan to complete a full performance test prior to the go-live date. This action will better allow your team to tune the system, getting all you can from your available resources and minimizing performance related issues at go-live.

It is imperative that these assessments be made early on to remove uncertainty and allow the project team to focus on other upgrade related details.

- **Platform:** Most upgrading customers choose to remain on their existing hardware, operating system, and database architecture through the upgrade. However, many customers take advantage of the upgrade timeframe to upgrade hardware and transition to the latest support version of the operating system and other third-party software. If your requirements include considering a change in this area, it is vital that this decision be made early on as the platform often drives most, if not all, of the software utilized.

- **Middleware:** One of the key decisions is which middleware platform you will use. PeopleSoft Enterprise supports both the IBM WebSphere products as well as Oracle Fusion Middleware. In choosing your middleware, be sure to understand the licensing requirements early to ensure that contractual issues will not become a barrier as the project moves forward.
- **Nonproduction Hardware**: It is important that all of your testing environments are adequate for handling the anticipated testing loads Too often, we only concern ourselves only with the production environment and assume that performance is not important in a test environment. Bad performance during critical phases of testing can not only provide users with a bad experience, but it can also affect the upgrade schedule by hindering completion of testing and delaying system deployment.
- **Unicode:** Another key decision is whether or not you will convert your database to Unicode. Most customers have data in a non-Unicode format. There are benefits and costs to each approach. In either case, a clear direction in this area will clarify hardware and project requirements and focus you on planning a successful upgrade.

Tip #17—Calculate New Hardware Sizing

Given the potential changes to your current system configuration, it is absolutely vital to get an accurate sizing for your new architecture. The combination of enhanced PeopleSoft Enterprise product functionality, technological change, anticipated changes in the way you use the applications, and possible implementation of new modules could all impact sizing requirements for the upgraded solution.

Accurate sizing information will help you decide whether you can reuse current hardware, need to increase hardware resources, or should consider upgrading one or more of your servers. Similarly, sizing considerations are important whether or not you intend to upgrade in place (with potential reuse) or switch to a new hardware platform during the upgrade process. Performance and load testing can help determine if the hardware is adequate to support your production requirements.

Tip #18—Identify Custom Code and Scripting

Any custom code integrated with the PeopleSoft application may be impacted during an upgrade. It is important to not only identify any custom code but also track the progress of any retrofit efforts during the project. You need to identify the code, who owns the code and its status. Included in the PeopleSoft Enterprise application upgrade Initial Pass, there are steps to identify your database metadata customizations. Compare reports from these steps can be leveraged to identify customized scripts and processes on your system's file server.

All interfaces, form customizations, and customized reports will require extensive testing to ensure that they have not been affected by changes to tables or API's in

the upgraded software. Custom responsibilities and menus must be reviewed and potentially updated as well. In some cases, customizations can be removed following an upgrade if new features and functionality satisfy the business requirements previously met with the custom code.

Tip #19—Defragment and Reorganize Your Database

From a general database perspective, there are a few actions that can be completed to assist the upgrade project. To optimize the efficiency of the system as you upgrade, you should defragment and reorganize the database to the greatest extent possible beforehand. Your database administrator should be able to use their existing database management tools to accomplish this goal.

Tip #20—Study and Adhere to Current Minimum Technical Requirements

A critical step in ensuring success is adhering to the technical requirements for your system. This applies to the release currently in production as well as the release to which you are moving. Make sure that you review these requirements early in the project to ensure that you have the right components and understand any updates or changes and how they will affect your upgrade plan.

Current information on minimum technical requirements can be located on the My Oracle Support Web site.

Tip #21—Follow the Specific Platform Recommendations

Refer to the My Oracle Support Web site for details. Log on and proceed to the Supported Platforms and Platform Communications section for Oracle recommendations regarding your specific RDBMS and PeopleTools Release combinations.

Installing Your New Release

Installing the new solution properly is a critical component of the upgrade process.

Tip #22—Install Verification

After installing the new PeopleSoft Enterprise solution, you should complete an inventory check to confirm that all components were installed correctly and are behaving properly. Details on the installation process can be obtained on the My Oracle Support Web site and install documentation should be explicitly followed to minimize potential issues. Once all aspects of the installation are confirmed, the process can continue.

Tip #23—Get Code Current

In addition to the basic installation steps, it is critical to get "code current" in the new environment before you invest in testing, configuration, and validation associated with going live. This process requires the most current aggregate fixes to be applied, such as Updates and Tools releases. Whether or not you install these fixes to the system early in the project is a significant predictor of project success.

The best run and most successful projects do this right after installation of the new application version. Configure and use Change Assistant to apply these fixes to the new environment. Also ensure that Posted Date Order is adhered to always.

Upgrading Your Data

Once the system is installed, you should turn your attention to data considerations. This step is a critical one in your upgrade success, and often the most time-sensitive.

Tip #24—Identify Data Migration Tasks

After the upgrade, there may be data migration and repository configuration tasks that must be performed manually. These tasks frequently involve customizations made in prior releases. The Upgrade Compare Process will identify and catalogue these needs during the Initial Pass to ensure that the upgrade effort is not compromised.

Tip #25—Minimize Application Data to Upgrade

There are several steps to take to prepare your application data for the conversion. The first step is to minimize the amount of data you need to upgrade. If you have a defined archiving and purge strategy for your data, be sure to apply it before the upgrade. If a defined data strategy does not exist in your organization, strongly consider implementing one.

Tip #26—Test with a Copy of the Production Database

Converting your data accurately and efficiently depends on the quality and makeup of the data itself. Working with a current copy of your production data will give you valuable information about how the testing process should be structured as well as how long it will take to complete. Typically, your first conversion will be the longest and the most difficult.

As you progress through the upgrade project, continue to work with accurate, current data, taking a fresh copy as directed in your upgrade path documentation. This consideration not only ensures the highest data quality, but will provide more accurate upgrade activity time estimates during performance testing.

Tip #27—Complete Parallel Batch Testing Between a Copy of the Old System and an Upgraded Second Copy

Testing investments can be reduced by making two copies of the production database and then upgrading one. Data can then be staged either through limited data entry or through batch input. Batch processes can then be run both in the old and new copies and the data/results analyzed either through query or production reports. The results can be compared electronically using compare utilities.

Tip #28—Leverage Existing Test Scripts and Plans

To prepare test scripts for use during the testing cycles, begin with the test scripts utilized during the original implementation and augment these to include testing of the new features and functionality. Also consider any modifications needed for process flow changes related to the upgrade.

If these materials do not exist from the original implementation or previous upgrade, create them and store them in a library. This material can save significant time in preparing for upgrade testing.

As of PeopleTools 8.51, the PeopleTools Testing Framework tools are available to make use of automated testing. These definitions can be upgraded for future releases to assist with testing of maintenance and future upgrade paths.

Tip #29—Choose a Minimum Number of Test Conversions

An effective testing cycle will involve a minimum number of testing runs. Successful upgrade projects test the data conversion multiple times. Depending on the complexity, volume, and success of the process, you might need to practice less than five times or more than 20. This practice instills confidence in the accuracy of the final conversion timeframe. Testing after your first successful conversion will help you prove repeatability in the process.

Tip #30—Perform Index Management

There are two main considerations regarding indices for accelerating your conversion.

- First, ensure that the indices that are used by specific conversions, including table conversions, are present during the upgrade process. If you have not deleted any indices on your system, they will be present by default.
- Second, there are some situations where you may want to limit the amount of indices available during a process. This is an advanced consideration, and most customers will not need to weigh this factor. However, in a complex upgrade, particularly if you are also changing platforms and converting to Unicode, you should consider whether it could help your project.

Training

While many of your team's existing skills will serve you well in your upgrade project, it is extremely important to provide training on the new features, business processes, and other changes that will help your staff become more efficient and effective with the new version.

Tip #31—Train End Users on the New Solution

When you first implement the system, your end users must be trained from the ground up to use the new application solution. However, during your upgrade, you will likely have experienced users who are already familiar with the basics. This fact

can both assist and impede your upgrade project effort. Your end users, most importantly those who will be testing the system, must have good information about how the resulting solution will be different, whether the changes are functional, user interface, or technical in nature. These considerations will prevent issues from being reported that are the result of misunderstandings, and better position overall acceptance of the new solution.

Applicable training can be located on the Oracle University Web site; additionally, information on training offerings, such as the PeopleSoft Enterprise 9.1 User Productivity Kit content, and available Webcasts can be found on the My Oracle Support Web site.

Tip #32—Get Specific Technical Training

The project team and support team must be proficient in the new technologies introduced in the latest release. Team members must also understand the new architecture and performance best practices. An assessment is recommended to reconcile the skills needed to support the development and maintenance of the new release. This consideration is especially critical for a successful upgrade initiative.

Applicable training can be located on the Oracle University Web site; additionally, information on training offerings and available Webcasts can be found on the My Oracle Support Web site.

Tip #33—Optimize Training Processes

One of the best ways to reduce the number of issues you have to track, research, and resolve is to train your users at an optimal time in the upgrade process. Although many of the core functional and administrative business processes are similar between releases, training will give your users the information they need to distinguish true issues from intended changes. For this reason, the timing of this functional training is important. While you may want key users to be trained early on to give input to the project and assess impact, most users prefer training closer to going live on the new system so they don't have to remember what they have learned over a long period of time without being able to apply this knowledge.

Post-Upgrade Activities

Once the core technical upgrade has been completed, there are several additional steps to ensure success.

Tip #34—Secure Functional User Buy-In

Functional validation of the system is a key task. Most projects use functional users, away from their main responsibilities to accomplish this objective.

Though it may be self-evident, if you have functional users complete testing, they must see the value of the process and share the project goals to complete the task effectively. Typically, these resources are setting aside important tasks to participate in the upgrade initiative, so take the time to solicit both management and individual

cooperation. Once this cooperation is achieved, ensure you are collectively allocating enough time to complete a thorough testing cycle.

Tip #35—Testing Scope

A comprehensive testing effort is one of the key steps to finishing the upgrade and going live on the new release. As such, it is important that you consider the testing element of the upgrade as a major software update. Typically, a full, integrated test is performed that includes user acceptance and performance testing, and exercises all the business processes the organization will use. You may choose to use automated testing tools; in most cases, this automated approach should be augmented with human testing as well.

Tip #36—Deciding to Go Live

Ultimately, the decision to start running the business on the new solution must be made internally, and taken seriously. As you approach the milestone of a new PeopleSoft Enterprise solution, make sure that the team has enough information to enable a defensible "go" or "no go" decision to be made. The go live checklist created earlier in the upgrade process should be leveraged to verify that the success criteria have been achieved during the project.

Make sure that all affected groups from both business and IT are represented in this decision. If you have a formal steering committee, this will be the appropriate decision-making body. If for some reason there is no steering committee, call a meeting for this purpose, gathering input from the stakeholders ahead of time and fostering the communication that will allow for an informed and broadly supported decision.

Upgrade Tools

Oracle provides a number of automated tools to assist in the patching, release management and upgrade process. These include Application Designer, DataMover, and Change Assistant. Application Designer and DataMover are tools that allow you to load the database with new and/or changed objects as they are needed for patches, maintenance packs, and upgrades. Change Assistant automates the process of identifying, downloading, and applying your PeopleSoft application maintenance as well as automates your PeopleTools and/or application upgrade.

Keep in mind that you should reside on the latest PeopleTools version and/or patch that is certified for your current application release. This will allow you to utilize the new and improved set of technical features that are available and fix potential problems before they affect your Web site. Upgrading your PeopleTools should be treated just like a standard upgrade project with the appropriate planning and testing cycles. When to upgrade your PeopleTools is usually determined by where you are in the implementation or upgrade process, or if there is a piece of functionality used by your Web site that needs to be fixed. This will vary by Web site, but proper planning and execution will assure that your environments are

upgraded at the appropriate time and with the least amount of end-user interruption.

Oracle Fusion Applications

The transition to the next generation of applications is a worthwhile journey that you should undertake if and when your business needs warrant it. The course for this journey has been set, it can be started today, and it involves deeper delivery of the benefits in three key focus areas: better business insight, adaptive business processes, and superior ownership experience. Oracle's investments are focused in these areas, and all future releases of our applications will raise the bar in all areas. In our discussions, the preponderance of feedback from business managers and users of enterprise software falls into these three categories.

As such, our investments in these three areas have resulted in substantial benefits with the delivery our major release, PeopleSoft Enterprise 9, in 2006. Beyond this major release and future PeopleSoft application releases delivered under the Applications Unlimited commitment, the final step to a single, convergent, next-generation applications product line will embody the results of our design decisions and unwavering focus in these areas. The convergent product line will embed business intelligence closer to the heart of the system, so that users can attain better business insight that is presented in the context of a workflow for decision-making. Oracle's investment in a service-oriented architecture, done right, with appropriate degrees of flexibility in how processes are configured, will eliminate the proverbial business/IT divide. Our holistic approach to reducing your total cost of ownership assures you that we are improving every aspect of your experience with our software—installation, patching, upgrading, maintenance, and end user productivity.

Additional Resources

The following collateral resources are provided for further information on upgrading your PeopleSoft Enterprise applications:

My Oracle Support

Conclusion

As part of Oracle's commitment to Applications Unlimited, PeopleSoft Enterprise continues to evolve, offering greater value and providing new advantages for your business. Upgrading PeopleSoft Enterprise is key to realizing the maximum return on your Oracle investment.

Each organization must evaluate the costs, risks, and rewards of an upgrade in the same way they would evaluate a new business proposal. This Oracle Consulting

white paper outlines best practices tips to enhance your upgrade project's success and value to your organization.

Oracle Consulting is ready to help you analyze, plan, and execute a PeopleSoft Enterprise application upgrade, in a lead or supporting role, as your organization desires. Tight integration across Consulting, Development, Support, Education, and Global Delivery puts the entire Oracle team behind your success. To learn more, contact your local Oracle Consulting representative at +1.800.633.0615, or visit oracle.com/consulting .

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Hardware and Software, Engineered to Work Together