“Clouds” on the Horizon: What’s the Best Oracle Fusion Strategy for Those Still on Oracle 11i or R12.0?

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Abstract

The general availability of Oracle Fusion, along with the new “Fusion Cloud,” increase the complexity of the challenges that accompany subsequent upgrade decisions. Attendees preview Oracle Fusion’s different components and understand the main differences between Fusion Cloud and Fusion On-Premise. Oracle 11i and Release 12.0 users will see a decision making tree for choosing between 12.1 or Fusion. This presentation highlights these points as well as key “like-to-like” licensing considerations from an Oracle ACE.

What Exactly Does Oracle Mean by “Fusion”

Oracle Fusion Applications is the name of a new business software application, which became generally available in October 2011. It does not sound like a new product, and that is because the market started talking about Fusion Applications many years ago. Oracle also adopted the name Fusion for the middleware architecture that is being adopted by every Oracle Application by simplifying all the middleware server layers for better maintenance and functionality. Oracle’s decision to build a new product from scratch was unclear and the word Fusion was bringing “conFusion” to the organizations that were using Oracle Products.

So why did Oracle decide to start from zero? One reason is that Oracle needed to clearly define a clear product-development roadmap for all of the ERP systems it owns. While this might have been the most important reason, it was far from the only reason. Another reason is that today many organizations are embracing service-oriented applications and they want industry-standard application’s platforms and enterprise resource planning systems needed to adapt to it.

Businesses are evolving into the new, more social network environments. The companies see their employees connected through chat, social networking sites, on-line communities and all sorts of capabilities that are used for their personal lives, which need to be part of their workspace as well. All these changes have impacted the nature of how to make rapid decisions by switching from routine tasks to managing exceptions and requesting more automated activities. This shift in the way people work needed to be reflected in enterprise application solutions. Another big transformation that influenced Oracle’s decision was the adoption of cloud computing for businesses. Now companies want to be able to deploy new technology in a fast and selective approach: on-premise or in the cloud. The new software solutions must meet these needs and be flexible in a modular way to deploy what you need, where you want it to be.

Given these market trends, Oracle moved forward with this new product with the principle of “modern platform, best practice business processes, new user experience, ready for cloud and with the collaboration of many clients and partners.”

What is the meaning of “New standard for Business”?

Oracle Fusion Applications were built with three, game-changing, goals in mind:

- New Standard for Innovation,
- New Standard for Work
- New Standard for Adoption
Building a product on open standards would allow organizations to lower costs by having common available skills in the marketplace, lower the risk of integration with other applications, which in turn makes it easier to configure, maintain and protect all your configurations during upgrades. Companies have to adapt to the challenges of the market and the configurations of the current systems are hard to change in a fast environment based on rapid decisions. That is what Oracle envisions with Fusion Applications: business software that can be manipulated with simple changes in the configurations and can be applied to all other objects reflecting the new business model in a timely manner. All these changes are based on a new platform that has a role-based user experience, intelligence business processes, services and a unified information repository. Every component is based on open standards such as Java, BPEL, XML, HTML, AJAX, RSS, mobile and others. An example of embedded analytics in Oracle Fusion can be seen at Illustration 1.

Every business software adopted different ways of structuring the security around the application and Oracle Fusion Applications has a new standard for work founded on a role-based user experience. It is very common for everyone working in a global organization to wear multiple hats and, for these employees to work effectively, the functionality that not only addresses their various roles, but also functionality that brings together the right information needed to make decisions. This functionality of role-based user experience connects your resources with the right people to get the job done.

Oracle Fusion Applications user experience is based on four questions:

- What I need to know?
- What I need to do?
- Who can help?
- How to get it done?

These four questions speak to how today’s organizations are trying to resolve problems by relying on having information stored in multiple locations with changes that are not reflected on-line, thus driving decisions made based on inaccurate data. A navigation in Oracle Fusion Applications showing “who can help” is shown in Illustration 2.

Another key concept in the user experience after having learned from past experiences, specifically on the E-Business Suite, is that developing extensions or changing the user interface was time consuming and it was always something that needed to be reviewed on patch applications and upgrades.

This new concept of how Oracle Fusion Applications can be extended presents a huge advantage. The idea that composers built on top of Fusion Middleware and how these composers are supported by Fusion’s Middleware’s Metadata Services (MDS) is a vast advantage for the IT team because it provides the ability to store changed metadata separately from the original metadata. So when patches or upgrades are applied, they affect the original metadata. After a patch or upgrade, the changed metadata is reapplied, preserving the changes.
The third goal of the Fusion Applications strategy is the New Standard for Adoption that gives E-Business Suite users a complete choice of options from suite to modules and the platform technology from cloud to device.

Cloud computing is a style of computing in which dynamically scalable and often virtualized resources are provided as a service over the Internet. Users do not need to have knowledge or expertise in, or control over the technology infrastructure “in the cloud” that supports them.

A private cloud runs within the firewall and is for the exclusive use of that enterprise. Certain applications may run on-premise, while other applications may run in public clouds. Even Oracle, which has one of the largest private clouds, also runs some applications in public clouds.
It’s interesting that public clouds are paid for as operational expenses, while private clouds are both capital and operational expenses. Enterprises need to examine trade-offs to determine what mix of private and public cloud computing is right for them. The new paradigm on hardware + software incorporates and integrates the infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS) concepts. It also draws on other recent technology trends, which are based on the Internet to satisfy the computing needs of the users.

Cloud computing is often characterized by:
- Virtualized computing resources
- Seemingly limitless capacity/scalability
- Dynamic provisioning
- Multi-tenancy
- Self-service
- Pay-for-use pricing

Oracle Fusion Applications give the choice of deployment from Public to Private clouds. You can also take the most common option of on-premise and the fourth choice is the hybrid approach where you can take the flexibility of taking multiple platforms, decreasing the total cost of ownership.

The other new concept is the modularity. Oracle Fusion brings initially 6 families: Oracle Fusion Financial Management, Human Capital Management, Sales, Supply Chain Management, Procurement, Project Portfolio Management and Governance Risk Controls. Within each of these families there are many new modules, as shown below:

What should Oracle 11i or R12 clients recommended path be?

It is important to say that Oracle Fusion Applications is not a replacement of your current Oracle ERP system.

It is not a replacement of Oracle E-Business Suite (or Peoplesoft, JD Edwards or Siebel). It is a new set of applications, which are based on concepts from these different systems, built on a new architecture leveraging the Oracle Fusion Middleware.
The suggested strategy is to continue on your current path, which means following the path of E-Business Suite roadmap which today goes up to Release 12.1.3 and it is announced Release 12.2 with some new integration points with Oracle Fusion for late 2012.

Oracle’s communication strategy of waiving the extended support fees of E-Business Suite clients running on 11.5.10 added more misperceptions among organizations in terms of support. As explained in the communication, Oracle just waives the first year extended support fees and does not extend the support, which means the clock is still ticking on extended support and the impact that hole will leave. As shown in the illustration below, it is very important to use this time wisely in order to avoid future problems.

Illustration 3: Oracle E-Business Suite Extended Support

Note: please review the minimum baseline patch requirement for your E-Business Suite implementation in My Oracle Support notes: 1362757.1, 1195034.1 and 757445.1.

The first decision on planning must be around the path of the E-Business Suite upgrade to the latest release and once that has been confirmed, that is when the Oracle Fusion Applications definition would come into the analysis.

One of the biggest advantages for E-Business Suite customers (PeopleSoft and JD Edwards as well) is how the Fusion Applications platform allows organizations to adopt a co-existence strategy with your current system and even with some modules such as Talent Management, Accounting hub, Procure to Pay, and others.

This new concept of co-existence is based on 3 pillars: Financials & Supply Chain Management, Human Capital Management and CRM Sales.
Oracle provides as part of the Oracle Fusion Applications suite, a number of pre-packaged integrations in the format of:

- Real Time Requirements: standardized Web Services, canonical definitions
- Master Data Synchronization: batch, ETL, ODI.

It is very important to understand that there isn’t a single integration solution, approach or technology that fits all integration requirements. However, you can educate yourself on the options that are available and how to apply criteria to the integration challenges to help you select the right approach and tools to solve your specific requirements.

**Migrating licenses from your current ERP to Oracle Fusion Applications**

Organizations that had made a significant investment in Oracle products, such as Oracle E-Business Suite, will not have to make another investment for Oracle Fusion. As a result of this, Oracle has introduced what is called “Like-for-like”.

“Like-for-like” pricing means that if a customer makes or has made an investment in previous Oracle products, Oracle is not going to charge them again for a “like” product. For example, moving from E-Business Suite Human Resources to Oracle Fusion Global Human Resources would not require extra licensing. In this case, the customer would terminate their licenses for E-Business Suite Human Resources and then license Oracle Fusion Global Human Resources for the same number of users.

An important point to consider when planning an Oracle Fusion Applications implementation is that it requires new technology, which was not part of the original ERP software purchase. This means that you’ll have to acquire the technology or a new license will be required for new modules. For example, adding Oracle Fusion Workforce Predictions to your HCM solution will require a new license.

Below you’ll find a quick description of the components of the technology layer, that you’ll be able to acquire as part of the Oracle Fusion Applications implementation:
Oracle Weblogic Server: Oracle Weblogic Server is an application server for building and deploying enterprise Java EE applications supporting the Oracle Applications portfolio. Starting with Release 12.2, Oracle E-Business Suite customers will start using some components of this product.

Oracle Identity Manager and Oracle Access Manager: These two products are part of a comprehensive identity management suite. Oracle Identity Manager 11g is core technology for role-based user provisioning and identity administration. Organizations can automate the process of adding, updating, and deleting both user accounts and attribute-level entitlements across enterprise resources. Starting this year, E-Business Suite users can take advantage of Oracle Access Manager, which was certified for E-Business Suite and allows for a smooth transition to Oracle Fusion Applications.

Oracle Golden Gate: Oracle Golden Gate is the best replication software and it is very easy to configure and deploy in large a scale environment. It is a replication tool, Extraction-Transformation-Load (ETL), and even a Disaster-Recovery (DR) solution. Oracle GoldenGate moves committed transactions with transaction integrity and minimal overhead on your existing infrastructure. Its wide variety of use cases includes real-time business intelligence; query offloading; zero-downtime upgrades and migrations; disaster recovery; and active-active databases for data distribution, data synchronization and high availability. This is a key tool for the co-existence strategy and allows the different options that are part of the integration between your existing ERP and Oracle Fusion Applications.

Oracle SOA Suite: SOA is a set of principles and methodologies for designing and developing software in the form of an interoperable service. This suite consists on the following components:

- **Oracle BPEL Process Manager**: A product that allows you to orchestrate disparate applications and Web services into business processes.
- **Oracle Web Services Manager**: A web services security and monitoring product that helps organizations not only to define and enforce security policies, but also to define and enforce the service level agreements.
- **Oracle Business Rules**: A high-performance, lightweight business rules product that addresses the requirements for agility, business control, and transparency.
- **Oracle Business Activity Monitoring**: A software that allows the monitoring of business activities, as those activities are implemented in computer systems (ERP, etc.).
- **Oracle Enterprise Service Bus**: A fundamental component of Oracle's Services-Oriented Architecture that provides a loosely-coupled framework for inter-application messaging.
- **Oracle Service Registry**: This product provides a 'DNS'-like reference for SOA runtime infrastructure to dynamically discover and bind to deployed services and end points.
- **Oracle JDeveloper**: Oracle has aimed to simplify application development by focusing on providing a visual and declarative approach to application development in addition to building an advanced coding-environment. Oracle JDeveloper integrates with the Oracle Application Development Framework (Oracle ADF)–an end-to-end Java EE-based framework that further simplifies application development.

Understanding the technical specifications for the new footprint

Doing your first installation of Oracle Fusion Applications is not an easy task because of all the technical components involved in the middleware layer but that’s no reason to not proceed.

The design principles for the middleware architecture are:

- Reduce concept and development complexities
- Use declarative metadata artifacts whenever possible
- Employ a single metadata infrastructure for dynamic changes
- Embed business intelligence, activity monitoring & managed content, end-to-end
- Present a collaborative, intuitive, multi-channel user interface
• Establish a single, integrated model-driven development environment
• Rely on standards-based, hot-pluggable architecture

As mentioned briefly in the introduction, the development framework adopted for Oracle Fusion Applications is the Application Development Framework providing:

• Increased productivity & ease-of-use  
  o Visual and declarative development  
  o Takes care of the “plumbing” code  
  o Implements best practices
• Promoted service oriented development  
  o Re-usable business services  
  o Composite applications development
• Standards-based Solutions  
  o Java EE, SOA, SDO/SCA …
• End-to-end coverage  
  o MVC, security, customization

The definition of a new Metadata Services layer (MDS), which provides a common metadata store, sets up personalized content and services for users, and is stored as layers on top of the base application.

The key benefits are insulating users from updates and patches and used throughout Oracle Stack: business processes, business intelligence and applications. This is something Oracle has learned throughout the years and as clients did the upgrade to Release 12. We can’t wait to see Release 12.2 go live, featuring the new “online patching” which will allow global organizations to dramatically decrease the downtime of patching.

Oracle Fusion Application’s sizing of the deployment will depend on the number of users and products or families that are being implemented. A simple production deployment will consist on the following servers:
• Web
• Security
• Fusion Application
• Database
• Storage

Below there’s an example of a very simple footprint.
For development and quality assurance deployments, there’s no need to implement a new security server since it can secure multiple environments and the Fusion Applications Server and Database Server will host all the necessary servers for both functions (Dev & QA). It is extremely important to make sure that the boxes are meeting the memory requirements, since each environment will need a different amount of RAM.

**Conclusion**

The recommended action is to **upgrade, adopt and extend**. Upgrade your E-Business Suite to the latest unlimited release. Take into consideration that Release 12.1 is the latest release (until Release 12.2 becomes general available) and it will be the base for coexistence with Oracle Fusion Applications.

Adopt standards based technology with Oracle ADF for customizations or extensions. Also, choose standards with Service Oriented Architecture for integrations with legacy systems or extensions, Oracle Business Intelligence for reporting and dashboards. The component of Oracle Business Intelligence Applications, which brings a pre-built solution for Oracle E-Business Suite and most of its business processes is also a key point.

Technical components such as Oracle Identity Management (OIM), part of Oracle Fusion Middleware, will allow your organization to manage the end-to-end lifecycle of user identities across all enterprise resources, both within and beyond the firewall. You can now integrate OIM with your E-Business Suite instances and also deploy applications faster, apply the most granular protection to enterprise resources, automatically eliminate latent access privileges, and much more. Enterprise Manager is a key element for lowering down the total cost of ownership (TCO) and decreasing the maintenance costs of your Information Technology (IT) team. Some metrics have shown that you can reduce your downtime by up to 90%, improve staff productivity by up to 75% and reduce capital expenditures by 20% or more on servers.

In terms of hardware, a huge advantage on performance for E-Business Suite can be found on the Exadata and Exalogic solutions—also named as Exastack. Some of the metrics performed on organizations running the E-Business Suite Order to Cash cycle showed that with Exastack there is 3 times better response time and 2 times the scalability than standard hardware.

Finally, Oracle’s proposal is to extend the value of business with Fusion Applications by implementing modules so that you can embrace the complete Fusion Applications solution. Every organization running E-Business Suite should take a close look into Fusion Applications but without leaving your ERP solution unattended with patches and upgrades. Oracle is putting a lot of emphasis on Fusion but it does not necessarily mean that we will have to move into it right away.

Oracle is committed to continue investing and providing unlimited support to the existing applications but it is also willing to have its customers adopting the new technology and extending their software solutions with Fusion Applications to adapt to the new paradigm of users and businesses.