

JD Edwards Upgrades Made Easy

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Abstract

Last Year the economic downturn caused most organizations to cut all their budgets, including IT spends thereby causing the business priorities for a majority of organizations to be changed - reducing operational costs while improving productivity.

As the market conditions have started improving this year, organizations have once again have started considering investments in growth oriented areas with IT being one of the key areas.

Introduction

As corporations become more dependent on their ERP systems, it becomes all the more important to strike the right balance between regularly updating the software and minimizing the cost and disruption to the business.

A recent Forrester study found that, Upgrades made the top concerns list of ERP customers together with Improving Integrations and Shifting the Process Orientation thereby establishing the fact that ERP upgrades is an essential activity in the ERP software lifecycle. Further, this demonstrates that an effective and efficient execution of an ERP upgrade has a tremendous impact on an organization's continuous business process improvement. Therefore, the decision to upgrade ERP is usually not driven by code deterioration or anticipated reduction in maintenance costs alone, but on several other criteria as well. According to an AMR study (Swanton 2004), 55% of upgrades were voluntary business improvements triggered by the need for new functionality, expansion or consolidation of systems; 24% of upgrades were triggered by technology stack changes; 15% of upgrades were forced by de-support of the running version of software to avoid vendor support termination (Craig 1999); and 6% of upgrades were triggered by bug fixes or statutory changes.

In this white paper, we analyze the options available to Oracle JD Edwards ERP customers for upgradation to newer ERP versions along with the challenges faced by such customers and how innovative tools and methodology coupled with the onsite offshore model significantly reduces overall project cost and time.

When to Upgrade?

ERP is designed to be an integrated system that captures the transactional details of a business, including financials, inventory and order management, along with the operational side. It covers everything - from manufacturing to human resources (HR) and dealing with suppliers and customers. While early versions of ERP had a narrower focus around manufacturing, distribution and financial components, subsequent releases have expanded in features to incorporate Advanced Supply Chain Management - right from Advance Forecasting, Warehousing planning, Logistics, Human Resources Management and Customer Relationship Management (CRM), among other capabilities.

Ideally, ERP systems should serve as the primary source for all critical data while delivering analytics and reporting functions that help companies make better decisions. If they don't, or if one of the following scenarios sounds familiar, it may be time for an ERP upgrade.

- **When the current ERP system lacks the features and functions required to efficiently run the business.**

The new versions of ERP offerings are generally packed with contemporary business processes and also Intelligence apart from Web functionality that help companies meet evolving business requirements, be more competitive and provide new features to facilitate e-commerce.

If the existing ERP system is unable to meet functionality requirements in the changing business environment such as manufacturing requirements, advance logistics tracking or e-commerce compatibility, then it is time for assessing new ERP versions.

- **When consultants aren't available to support**

Finding right consultants to support outdated ERP systems could become a nightmare for the Recruitment Department as working with an older ERP platform that does not support the latest technologies could potentially hurt the consultant's skill set in an open market. The cost of hiring the right consultant and maintaining outdated ERP systems can be a huge drain on a company's IT budget.

- **When employees aren't using the system**

Outdated ERP systems can be a huge deterrent in motivating internal customers to use the ERP system - not to mention a turnoff for attracting and retaining new talent. If companies find users backing away from the system because it's outdated or because it doesn't support modern productivity tools, it's clear that the existing ERP platform has run its course and CIO should look for upgrading to new ERP systems.

- **When ERP system integration is difficult.**

Companies often spend considerable time and money in building and maintaining custom software for integrating in-house or third party systems to address specific business processes. They often end up with a complicated mess of custom code that becomes difficult to scale and support as more functionality and end users are added to the system.

When IT department spends more time in integrating or managing a host of older systems and new functionality that is added from third-party applications or internally developed software, it's time to upgrade to a single ERP system and get rid of the integration and maintenance work. The new ERP platforms, almost all of which are based on a service-oriented architecture (SOA) foundation, go a long way in reducing integration and maintenance costs

- **When it's matters most irrespective of ROI.**

There is difference of opinion among experts whether making a ROI case is necessary for justifying an ERP upgrade. Formerly a level of business case justification is needed. Now that ERP systems are an absolute requirement for business, just ROI may not be justifiable for an ERP upgrade. According to AMR Research Inc., formal ROI analysis used to be required 70% to 80% of the time to justify an ERP upgrade; now it's more like 10% to 15%.

Today, upgrading an ERP system is not an option but an absolute requirement to support expanding businesses in current challenging environment. A ROI Analysis for an ERP upgrade may not necessarily be required as it is for any capital project as it is synonymous with analyzing ROI for upgrading one's lifestyle.

Upgrade Options

Oracle JD Edwards provides for two different types of ERP systems viz.

- Oracle JD Edwards World - Build for IBM i-series platform, JD Edwards has the largest installed base for i-series. Oracle has released two new versions of JD Edwards World viz. World A 9.1 and World A 9.2 providing enhanced functionality to meet the business requirements

Release	GA Date	Premier Support end date	Extended Support Ends	Sustaining Support end
A7.3	Not Available	Dec 2013	Not Available	Indefinite
A8.1	Not Available	Dec 2013	Not Available	Indefinite
A9.1	Apr 2007	Apr 2012	Apr 2015	Indefinite
A9.2	Apr 2009	Apr 2014	Apr 2017	Indefinite

- Oracle JD Edwards EnterpriseOne - Oracle JD Edwards EnterpriseOne has multiple releases right from One World Xe which was released in Sept 2000 to EnterpriseOne 9.0 which was released in Sept 2008

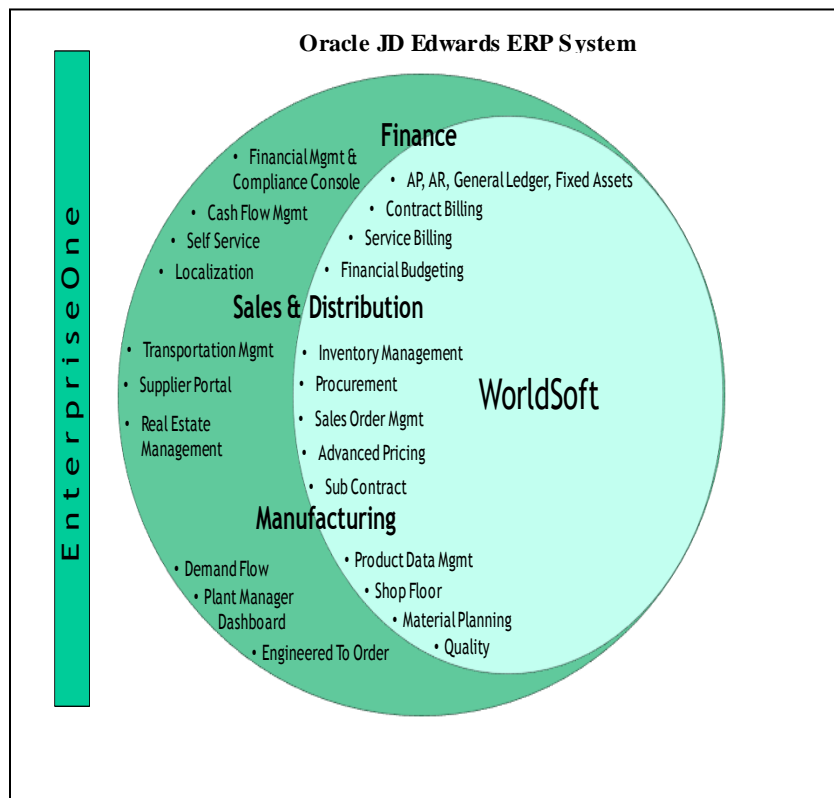
Release	GA Date	Updates, Fixes, Security Alerts, and Upgrade Scripts	Premier Support end date	Extended Support Ends	Sustaining Support end
Xe	Sep 2000	Dec 2013	Dec 2013	Not Available	Indefinite
8	Jun 2002	Dec 2013	Dec 2013	Not Available	Indefinite
8.9	Sep 2003	Sep 2008	Sep 2009	Not Available	Indefinite
8.10	Jun 2004	Jun 2009	Jun 2010	Not Available	Indefinite
8.11	Dec 2004	Dec 2009	Dec 2010	Dec 2012	Indefinite
8.12	Apr 2006	Apr 2011	Apr 2012	Apr 2014	Indefinite
9.0	Sep 2008	Sep 2013	Sep 2014	Sep 2016	Indefinite

*Date taken from Oracle Life Time Support Policy

The existing JD Edwards World customers who own the earlier version of WorldSoft have the option of upgrading their WorldSoft environment to a higher version namely World A-9.2 or migrate to a higher version of EnterpriseOne 9.0. The final choice of upgrading to WorldSoft or migrating to EnterpriseOne depends on matching new functionality requirements to new business processes, Integration requirements, availability of resources for providing support etc.

Oracle EnterpriseOne 9.0 is functionally richer than JD Edwards World A9.2. The functionality in JD Edwards World 9.2 is a subset of functionality as available in EnterpriseOne 9.0.

JD Edwards 9.0 not only provides functionalities for Real Estate Management and the Food & Beverages Industry, it also provides dash boards (BI) for Financial Management and Plant Management besides providing a new functionality in CRM.



Migration to EnterpriseOne ERP system provides an option for moving away from proprietary operating systems and DB2 database on the existing IBM platform to open source operating system with a multiple choice of databases. As a rule of thumb, existing WorldSoft clients do not requiring multiple double byte languages to upgrade their ERP system to higher version of JD Edward WorldSoft provided the functionality in WorldSoft meets their business needs. However Multi site, multi nation and multi instance customers on JD Edwards World should

explore the option of migrating to JD Edwards EnterpriseOne for newer functionality and superior Return on Investment.

Pros and Cons of Migrating to EnterpriseOne from WorldSoft Platform

	JD Edwards World	JD Edwards EnterpriseOne
Advantages	<ul style="list-style-type: none"> ▪ Possible use of existing infrastructure and custom objects ▪ User's familiarity with the system ▪ Statutory requirements ▪ Availability of in-house trained resources 	<ul style="list-style-type: none"> ▪ Technically and Functionally superior product ▪ Platform independent ▪ Database Independent ▪ Robust integration platform ▪ Large pool of trained resources ▪ Unicode compatible ▪ Statutory Requirements ▪ Shared Service ▪ Dashboard - Finance and Plant Manager ▪ More User friendly / Ergonomics ▪ Large investment from Oracle
Disadvantages	<ul style="list-style-type: none"> ▪ Poor availability of trained resources ▪ High application support cost ▪ Higher Ownership cost (High Application Cost / High Hardware Maintenance Cost) ▪ Locked into AS-400 system - maintenance intensive system ▪ Difficulty in handling multiple double-byte languages 	<ul style="list-style-type: none"> ▪ Redevelopment of Interfaces with 3rd party systems ▪ Redevelopment of custom objects ▪ Change Management / User Training ▪ High Cost

There is no doubt to the fact that Upgrades are essential to get the maximum return out of JD Edwards ERP investment in the long run brings new functionalities and features to the ERP solution, while keeping incremental costs low. However an organization looking to extract the maximum benefit of an ERP upgrade, is recommended to engage a Consulting partner who could also work as your business partner to facilitate exploring out of the box functionalities

to reduce the level of customization. Such consulting partners also bring with them best in class methodology, tools and resources to ensure completion of the upgrade project within schedule.

Upgrade Challenges and L&T Infotech Solution

ERP upgrades bring significant challenges pertaining to managing project expenses and controlling project scope. While ERP users benefit from technical and functional benefits on upgrading to higher versions, upgrades can often be quite time consuming; identifying the potential problems with interfaces and testing systems appropriately can be a complex task.

In our experience of delivering JD Edwards solutions to global enterprises, we have identified the most common challenges enterprises face while upgrading. Here are a few key imperatives CIOs typically face.

Customizations, Bolt-On Applications

One of the main reasons for the complexity of ERP is its flexibility in allowing users to fine-tune and customize the system to address their particular needs and procedures. The trade-off is ever-increasing code complexity, which in turn results in inability to accurately predict whether the multiple customizations and changes will function properly after upgrading to the new version or implementing other major changes. Further it is seen that many organizations customized their standard JD Edwards applications without changing the system code. Since such changes are carried out in the system over a long period of time, it becomes difficult to identify such changes in the absence of proper documentation. Thus creating an inventory of existing customizations in the system and determining the strategy to move these onto the upgraded system is a critical task and should be part of the upgrade planning process. Most upgrades have to work with very less documentation, which often proves to be a major hindrance.

Organizations, traditionally have been dealing with this challenge by using a manual trial-and-error approach to find such customizations. However, the shortcomings of this method become more apparent as the complexity of the ERP system increases. This includes, for example, an inability to detect customizations, higher costs due to increased utilization of

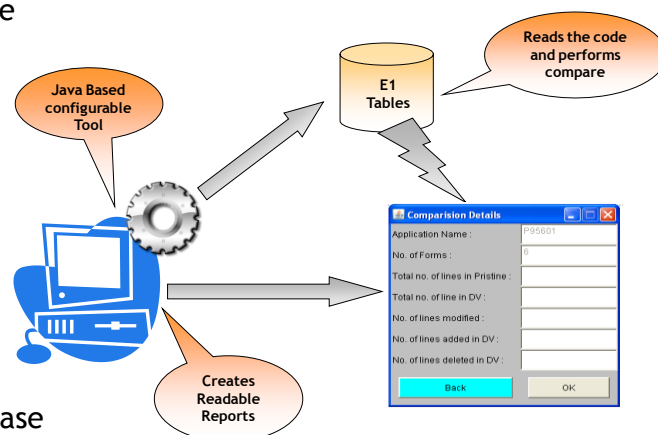
development and testing resources, extended implementation time, and inability to accurately calculate the project timeline and costs.

To tackle the shortcomings of traditional approaches, there is a growing need for solutions to automate event rule comparison processes. These solutions should provide comprehensive capabilities such as impact analysis of customizations and changes to an application, Batch applications, Data dictionary items and changes in business functions and NER.

L&T Infotech has developed a tool **RetroDash** which provides details of all custom objects making it easy to identify the customization in the existing ERP system and hence considerably reduce the total time required for the upgrade.

The tool provides the following information :

- List of all custom and standard objects
- Percentage change in the custom object and standard objects
- List of standard objects used by custom objects in source release and not in target release



Processing Options

After the technical upgrade of the JD Edwards ERP system, it is important to ensure that the processing options values, data sequencing and data selection values are in sync before testing is undertaken. The traditional way of comparing the processing option values requires a lot of manual intervention and is prone to mistakes which can jeopardize the success of the testing phase besides creating doubt in the mind of user community about the upgrade process.

L&T Infotech has developed a JDE based tool named J Cart, developed using BSFN's and Reports. It allows for comparison of Processing Options, Data Selection and Data Sequencing across releases or environment. The tool allows the project team to ensure that Processing options and Data selection values have not undergone any change during processing the Upgrade work bench.

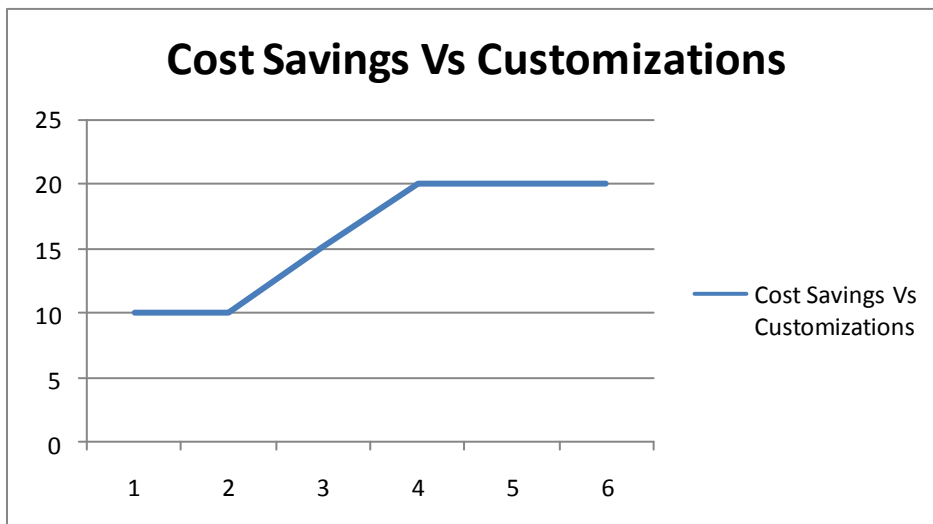
Brittle Integrations and Data Replications

In many enterprises, business processes consist of silos of application software connected by the slapdash integration equivalent of duct tape, chewing gum, and string. Such integrations pose major challenges during an upgrade given that these integrations are often created in a way that make it very likely for them to fail. Validating and correcting such “brittle” integrations one by one after an upgrade can easily consume as much as half of the entire upgrade budget.

L&T Infotech recommends that the focus for developing integrations for data synchronization needs to be on creating “maintainable” integrations which are independent of application specific interfaces. In this context, well defined and “upgrade resilient” interfaces in the form of application web services are the first important building block. They offer stable integration interfaces that hide application technology concerns and also make use of validation logic built inside the application’s business logic.

Conclusion

The innovative tools & methodology developed by L&T Infotech coupled with onsite-offshore model helps in reducing Total Project Time by 15-25% and overall project cost by 20-30% depending on the level of customizations in the existing ERP system.



Abbreviation

ERP	Enterprise Resource Planning
ROI	Return on Investment
JDE	JD Edwards

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Arvind Ankalikar is a Bachelor of Mechanical Engineering with Masters in Management from Mumbai. He is also certified in Advanced Manufacturing and Supply Chain Management area and has been part of many large ERP implementation and Business Process Reengineering projects. He has worked on many Enterprise Application solutions such as BaaN, Lawson, JD Edwards, PeopleSoft and eBusiness. He is also a visiting faculty at many leading management schools in India where he covers subjects such as Project Management, IT Applications for Business, Business process Reengineering etc. for students of Masters degree. Currently, he is pursuing research in Supply Chain area at Mumbai University.

Arvind Ankalikar has released several papers in IT applications and has made presentations at various International forums such as Oracle Openworld, Oracle Nordics event, CRM conclave etc.

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Rakesh Pande possesses over 24 years of experience as a functional and Project Management professional, specializing in sales, distribution, logistics management, project execution and implementation of enterprise solutions. Approximately 10 years of his career have been specifically focused in implementing JD Edwards EnterpriseOne ERP solution. His area of specialization includes Business process Management, and ERP Program Management. He manages multiple global clients having multi nation multi-site ERP architecture. He has also acted as solution architect for Order to Cash, Procure to Pay and Supply Chain Management for number of ERP implementations.

Rakesh Pande is a certified Oracle JD Edwards Implementation Champion for Order to Cash, Procure to Pay and Distribution including Logistic business processes.

About L&T Infotech

Larsen & Toubro Infotech Ltd. (L&T Infotech), one of the fastest growing IT Services companies, is ranked 5th globally among the Best IT Services Providers by Global Media Services in 2009, ranked 11th by NASSCOM among the top software and services exporters from India and also ranked among the 'Leaders' category in the prestigious Global 100 list released by the International Association of Outsourcing Professionals (IAOP). A wholly-owned subsidiary of USD 9.8 billion Larsen & Toubro, India's largest technology-driven engineering organization, L&T Infotech is differentiated by the unique Business-to-IT Connect, which is a result of our rich corporate heritage.

We offer comprehensive, end-to-end software solutions and services in the following industry verticals: Banking & Financial Services; Insurance; Energy & Petrochemicals; Manufacturing (Consumer Packaged Goods, High-tech, Industrial Products, Automotive, Chemicals & Process, Media & Entertainment, Pharma, Retail and Logistics); and Product Engineering Services (Telecom).

We also deliver business solutions to our clients in the following Service Lines: SAP, Oracle, Infrastructure Management Services, Testing and Consulting. Our other Service offerings are: Business Analytics, Legacy Modernization, Applications Outsourcing, Architecture Consulting, PLM, Service Oriented Architecture, end-to-end integrated engineering services and embedded system solutions.

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