Implementing Oracle BI Applications during an ERP Upgrade

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Summary

Emerging Solutions, a professional services firm and Oracle Certified Platinum Partner, helping global and mid market firms maximize the benefits of business applications by using leading edge technology. Emerging Solutions implement, upgrade and integrate innovative custom solutions and packaged applications from leading software vendors.
The following information will provide support for implementing Oracle BI Applications during an ERP upgrade, based on cost minimization and improved business efficiency.

- Periodic Enterprise Resource Planning (ERP) upgrades are necessary to incorporate new features and to stay within the vendor's window of preferred releases. Upgrades can be a major project costing hundreds of thousands up to millions of dollars.
- Organizations regard ERP's as strategic assets.
- ERP systems contain enterprise wide data, used to provide up to date status of an organization. Therefore, it is imperative to consider the impact of upgrading reporting systems in the context of an ERP upgrade.
- The ERP upgrade offers a unique opportunity to replace many ERP reports and custom reporting and data warehouses with Oracle BI Applications (OBIA) because:
    - Similar work is required for both an OBIA implementation and an ERP upgrade. Several tasks involved in ERP upgrade and OBIA implementation are common.
    - Over 90% of ERP reports can be replaced with reports driven from the OBIA, reducing the load in the ERP system.
    - Organizations find that OBIA are less expensive and simpler to maintain than their existing reporting solutions, saving 50% or more on labor.
    - An increase in reporting capabilities often results, which provides organizations with greater quality and quantity of data, improving business outcomes.
    - For organizations that have multiple ERP modules or add a new ERP system, OBIA provides a centralized reporting system across all ERP systems.
    - Work completed as a result of an ERP upgrade can be leveraged when/if an organization moves to Fusion applications.

Upgrading ERP's

Upgrades are usually performed to incorporate functionalities offered by a newer version and to mitigate risks to the current system. An ERP upgrade requires dedicated development time, resources

and budget. An upgrade can take from months to years to complete, and involves technical, functional and business user resources, to attain maximum benefits.

Key areas of focus, which must be planned and budgeted for, include ensuring smooth and uninterrupted data transfer, development of work processes and report capabilities to provide necessary data for functionality and decision-making.

Data transfer between systems and/or ERP versions is essential and can be complex .The volume and complexity of data increases with additional ERP modules such as Supply Chain Management, Product Lifecycle Management, Resource Management, and Budgeting and Planning, and must be protected during the ERP upgrade process.

Specific work functions must exist to ensure reporting continues and business needs are met. Reports which pull data from the ERP may require modification based on data organization (known as, its "schema"). Systems used to populate operational data stores, data warehouses, or data marts, (known as Extraction, Transformation, and Load, or ETL systems), may also have to be modified. The reports generated from these data stores should be altered to ensure a smooth transition. Depending on how reporting data stores are constructed,

If an organization has not upgraded its ERP and is skipping one or more intermediate releases, e.g. migrating from PeopleSoft 8.8 to 9.1 (skipping 8.9 and 9.0), the scale of the upgrade will increase to accommodate both ERP and reporting needs.

To ensure maximum efficiency and value is brought to the project, important questions to be asked by the functional and IT teams include:

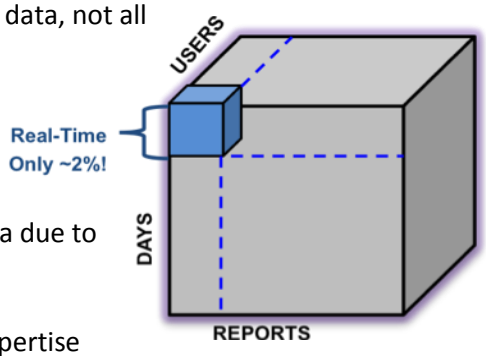
- How do we increase my organization's agility?
- How can we foster cross-functional collaboration?
- How do we push adoption of best practice KPI's?
- How do we increase the organization's resilience?
- How do we provide metrics that span functional and data silos?
- How can we ease the pain for my next upgrade?
- How do we decrease the load on the ERP system?
- How can we lower my ongoing maintenance costs?
- What reporting should be implemented from my ERP vs. my data warehouse?
- Do changes in the vendor's technology mean we should revisit other parts of the architecture during this upgrade?

Need for Speed

Examples of how the Functional and IT teams work together can be demonstrated with examples Emerging Solutions has encountered and successfully dealt with during client engagements.

Problem: Report generation historically has been a cause of system slow down and degradation.

- An increase in the number of users as the ERP system grows.
- An increase in the number of reports being generated
- An increase in the amount of "live data" being pulled with each report request.
- Reporting tools that come with ERP system always run against real-time data.
    - For example, in PeopleSoft, all cyclical or ad-hoc reports, whether they are nVision, Crystal or PS Queries run against real-time data.
    - This unnecessary load on the ERP system causes response time to degrade.
- Most reports are historical and do not require real-time data, not all users need real-time data for their analysis.



Problem: Reporting tools provide a static view of the data without the ability to drill down to details.

Problem: Multiple report types are created to obtain similar data due to a lack of customization and/or drill down capabilities.

Problem: Data consumers often do not have the training and expertise needed to run these reports or create new ones.

- As a result, IT is heavily involved in extracting data for business users, eventually becoming a "reporting house".

Over time an abundance of custom reports are in the system to fulfill the ad-hoc needs, making upgrades to the ERP and its reports system difficult, expensive, time consuming and risky.

Solution: Recognizing where and when "live data" is needed, who needs it, and ensuring a true understanding of how the system needs to and will work on a daily basis with our client partners. This ideology is applied to all aspects of the engagement and is essential to creating a usable, timely, efficient and cost effective technology solution.

At Emerging Solutions, we utilize the years of experience and knowledge our professionals impart to ensure a successful ERP upgrade.

Need to add enterprise wide BI to ERP Systems

Problem: Existing reports do not meet current business needs or cost too much to maintain.

- Older reporting functions operated independently, i.e. they were created when each functional, geographic, or product area could run with minimal interaction with other areas.

Solution: Create reporting options, which meet current and anticipated future business need.

- With greater demand for transparency and accountability from stakeholders and regulators, along with globalization, mergers and acquisitions, there is a more constant need for inter and intra-company collaboration and improved and transparent management processes.

- Executives are being held accountable for business success and failures. The imperative exists to ensure operating information is correct and consistent. They must have confidence in their process and, ultimately, in the results they are reporting.

Upon conducting initial assessments prior to ERP implementation or upgrade, Emerging Solutions has determined that many reporting solutions were not built according to data warehousing best practices.[7] Upgrading them to a new release of the ERP can be as costly as beginning anew. If best practices are not adopted, not only will this upgrade to reporting systems cost more than it would otherwise, future upgrades will also be more time consuming and costly.

The impact of good data warehouse and ETL design on maintenance costs and upgradeability

Data warehousing (and other) best practice applications are imperative to a successful ERP implementation/upgrade. The system cannot be stagnant, it must adapt to grow with and apply business intelligence to the organization, this includes adherence to the following principles:

- Separating the extraction from the load in the ETL to simplify upgrading and minimize data extraction and load time.
- Using an enterprise data model, not a subject specific data model, to minimize disruption when new functionality is added to the data warehouse.
- Employing conformed dimensions (i.e. consistent definitions across modules - procurement, accounts payable, or project work.
- Providing tools to maximize user self service.
- Building metrics and attributes that follow business processes to allow results from several ERP's, Oracle's or third parties', can easily be combined to provide users consistent views across the organization.

These data warehousing solutions can either be built or bought. Emerging Solutions has found Oracle BI Applications provide key benefits including:

- A faster time to value.
- Enhanced functionality.
- A single BI foundation for the enterprise.

Oracle Business Intelligence Applications (OBIA) plays a key role

Oracle Business Intelligence Applications (OBIA) are packaged BI solutions for ERP and CRM systems that allow organizations to deploy BI on a small scale for a single department and then expand seamlessly to support other departments using the same model and platform, delivering a consistent view of enterprise information. Prior to OBIA, technology solutions were distinct data marts built for each department's custom solution, and lacked information sharing capabilities with other functional areas or divisions. The build-your-own approach often creates silos of information that must eventually be replaced or consolidated into a single enterprise data warehouse at great expense. The value of Oracle Business Intelligence Applications compared to traditional, in-house BI solutions is clear: quicker time to

deploy, less overall cost, an enterprise view of data, role-based views for all employees, closed-loop processing, and built-in best practices.

Upgrading the ERP System? Perfect time to add enterprise wide BI to ERP

Another important question to consider is when to implement BI solution. The best time to implement Oracle Business Intelligence Applications is during the upgrade of your ERP system.

For a successful implementation of a BI solution for ERP, it is critical to create a project team with IT and Functional expertise. The advantage of implementing OBIA during the upgrade process helps to ensure the same resources involved with both the ERP upgrade and OBIA implementation.

By adding OBIA to an ERP upgrade, duplicate and costly tasks can be completed once and in some cases eliminated all together, including:

- Fit-gap analysis
- New report requirements
- Updating external data silos

As a result, a dedicated data warehouse is added to ERP system. This warehouse will be kept in sync with future ERP upgrades, as Oracle will provide an upgrade to OBIA along with the upgrade of ERP system. This reduces the risk of reporting system falling out of sync with ERP and makes future upgrades of ERP smoother and less costly.

Figure 1.2 below explains the tasks involved in a typical PeopleSoft upgrade and how several tasks can be combined together if OBIA is implemented during the upgrade process.

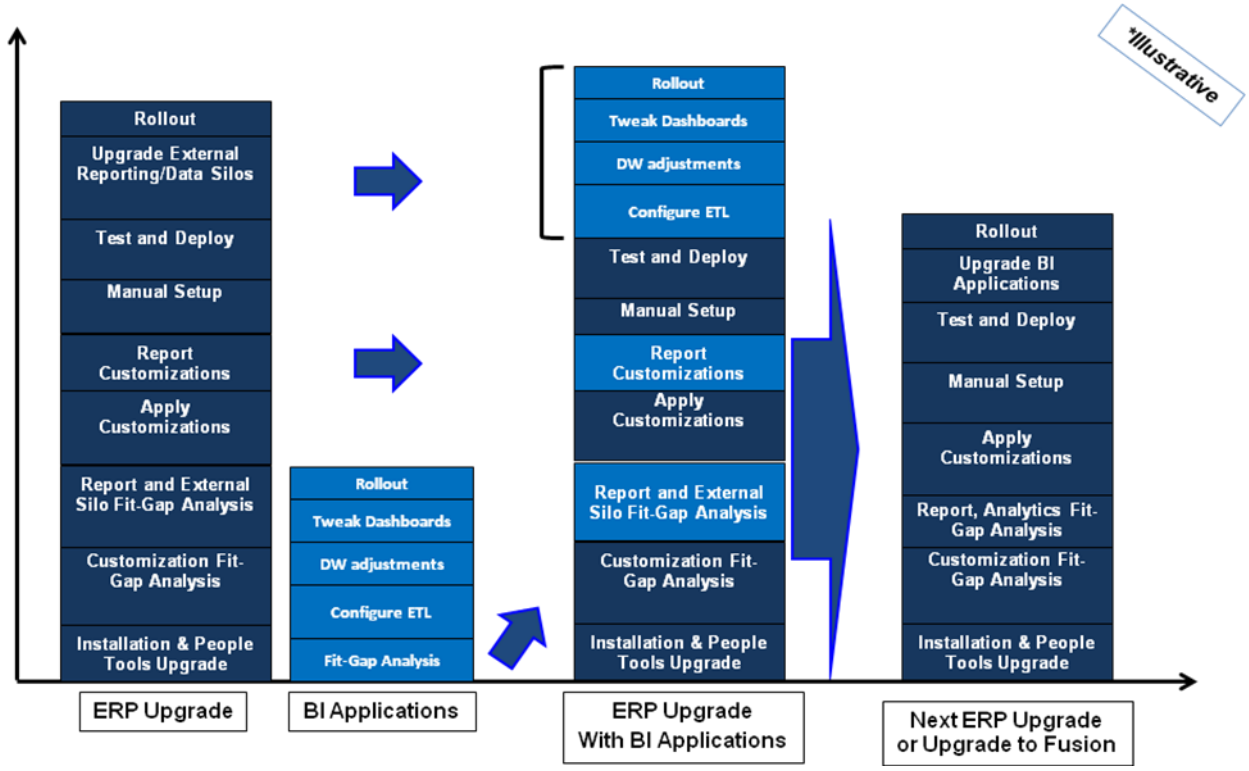


Figure 1.2

Advantages

After the organizations add Oracle BI Applications, they typically see many advantages for both their IT and functional users, including:

- A reduction in ongoing maintenance.
- Richer, deeper analytics across functional areas.
- Utilize the features Oracle is building into Fusion applications.

Reduction in Ongoing Maintenance

An advantage of adding OBIA when upgrading an ERP system is a decrease in maintenance labor. Once OBIA is implemented, IT does not have to build and maintain many new metrics, as they are calculated as part of the OBIA warehouse or in the prebuilt metadata provided as part of the OBIA.

OBIA is built on OBIEE, a simple to use BI tool. Users can modify or build many of their own reports, eliminating the number of IT requests for new data or reports. It is also easier to build reports in OBIEE than it is in tools like PS Query or nVision, where a report does not require real time data. Therefore reports can be built and maintained less expensively than in the past. Oracle provides the adapters to new releases of its ERP and CRM systems, the next time the ERP needs to be updated, costing less to

simply upgrade OBIA than re-writing or modifying ERP reports. OBIEE is easier to use than many existing tools, users can become productive with less training, saving time for both IT and system.

In addition to offering an easier to maintain, Oracle supported, reporting solution, Oracle BI Applications also provide many other benefits.

- They are built on data warehousing best practices, assuring better and more predictable performance and easier capability to enhance and grow the functionality provided. Some features include:
    - An enterprise wide bus architecture data model.
    - Automated support for slowly changing dimensions.
    - Intelligent update and insert logic to minimize load time.
    - Incremental extracts wherever possible to minimize load on ERP and CRM systems.
    - Support for bulk loading tools for all supported database platforms.
    - Support for and use of many non-additive metrics, like market shares and cycle times.
- Oracle understands the best place to source different metrics and attributes, minimizing the chance that a metric or attribute will be subtly different than was expected.

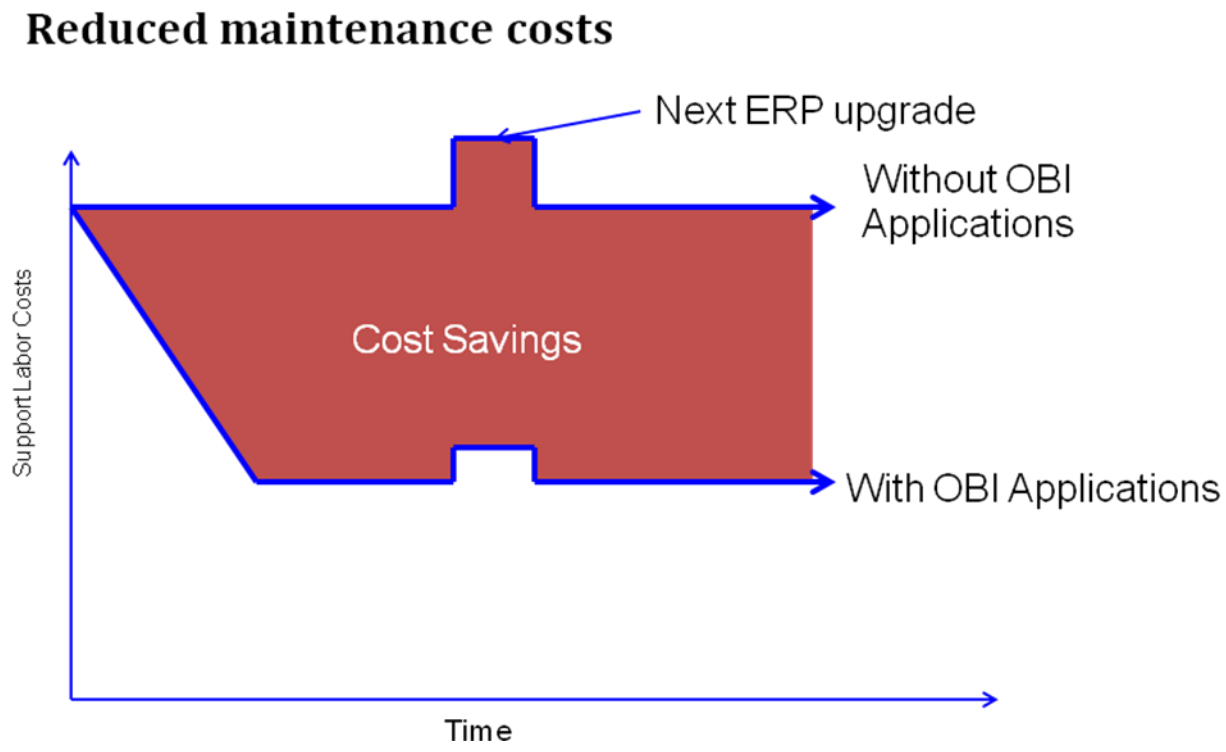


Figure 1.3

Richer, more detailed analytics

The Oracle BI Applications typically provide a much richer set of analytics than are seen in most custom data warehouses, built around industry best practices, saving IT from performing the time consuming role of subject matter experts in as many functional areas. The analytics provide data at the lowest level in the ERP or CRM system, removing additional workload from the ERP system. The underlying data warehouse is designed as an enterprise data warehouse, combining metrics from different functional areas enabling users to answer questions that pertain to multiple areas, such as "How does supplier performance affect customer satisfaction?"

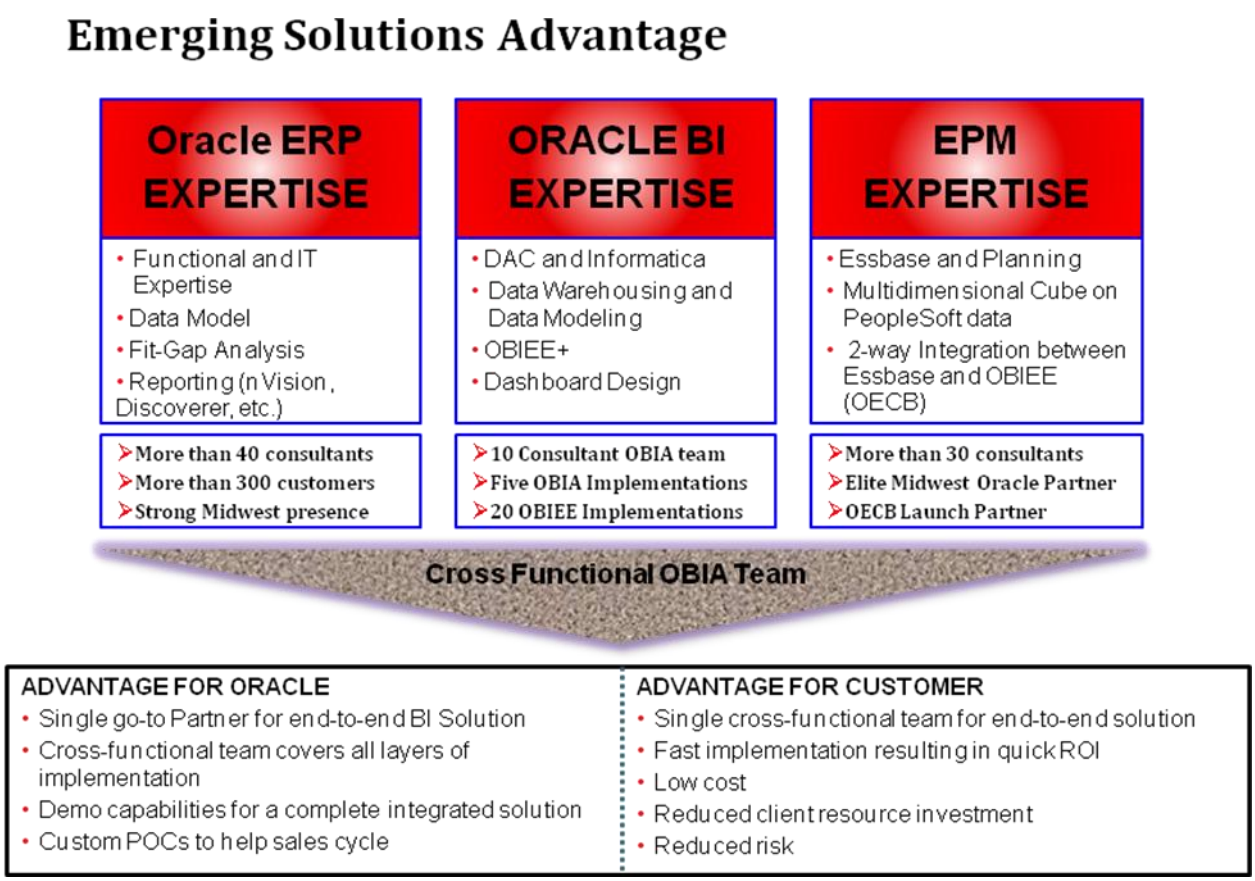
Preparing for Fusion

As ERP vendors move forward, business intelligence is being embedded further into ERP systems, often blurring the line between ERP and BI. Oracle Fusion is an example of this, basing its infrastructure on Oracle BI Applications. Implementing this allows an organization to embrace enterprise BI presently, creating an easier migration to Fusion. Organizations will be better prepared to take advantage of the Fusion functionality, and will be more used to using analytics as part of closed loop feedback mechanisms to drive business processes for maximum benefit.

Selecting the right partner

Selecting the right partner for an ERP upgrade and OBIA implementation is imperative for a successful project. Implementing OBIA during an ERP upgrade will require a cross-functional team with the BI expertise to perform the technical implementation, the functional and technical knowledge of the ERP system to perform fit-gap analysis, perform the upgrade, define new reporting requirements and perform the data validation between ERP and OBIA. Frequently, ERP data is exported into an Enterprise Performance Management system (EPM) for forecasting, budgeting and what-if analysis. An ideal partner has expertise in the key areas of ERP, Data Warehousing, OBIEE and EPM (Hyperion). This allows for a single team to be involved from start to finish including upgrading the ERP system, implementing OBIEE and when needed, integrating EPM with OBIEE to transform the transactional data from ERP into high-performance multi-dimensional cubes.

At Emerging Solutions, we understand how important it is for customers to have a single dedicated team to help with this type of project. Emerging Solutions has dedicated practices for PeopleSoft, OBIEE and EPM (Hyperion). Our cross-functional teams provide end-to-end solutions for customers, from ERP to OBIA to EPM. This combination of cross-functional expertise helps ensure the best project outcome for our clients.



Conclusion

Implementing Oracle BI Applications during an ERP upgrade offers clients significant synergies, in several areas:

- Reduced time and cost compared to serial deployment.
- Increased functionality compared to many custom data warehouses.
- Reduced load on the ERP.
- Reduced IT involvement in the ongoing support of the BI system.
- Provide a centralized but flexible reporting program for the entire, extended organization with a single version of the truth for all reporting constituencies.
- Reduced costs for future upgrades.
- Increased alignment with Oracle's roadmap toward Fusion.