

BELLSOFT Offshore Development Center Model

Peoplesoft Enterprise Solutions

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Bellsoft Offshore Development Center Model

For organizations to stay ahead in today's fast changing business scenario, time is the single biggest factor - time to market, time to respond to customers, time to launch new products etc. In this scenario the corporate management teams are faced with growing number of challenges and business risks due to:

1. Rapid advances in technology
2. Scarcity and the challenge to retain talented and skilled people, especially technical people
3. Intense competition from non-traditional sources with emerging business models
4. Mergers and acquisitions - integration issues

Bellsoft Offshore Development Center Model for Peoplesoft Enterprise Solutions can help organizations improve business performance and focus on strategic business objectives by leveraging resources and expertise from anywhere in the world, round the clock and at competitive costs. Under the Offshore Development Center approach, a globally distributed team delivers the solution. The onsite team interacts daily with the client to define requirements, review prototypes, provide acceptance testing, project management, and determine scope changes. The offshore team ensures quality execution at a low cost, as well as access to technology competency centers. Onsite and offshore teams collaborate on common systems linked by the service provider's global network. This 24x7 iterative process is well suited to new technologies and e-Business needs.

Outsourcing an organization's Peoplesoft Enterprise Solutions development requirements to Bellsoft has the following advantages:

1. **Focus on core competencies:** Organizations need to focus on their core competencies and let Bellsoft manage non-core activities. JD Edwards' development and support, even though it is critical, is a non-core function. Outsourcing can help organizations focus on strategy while Bellsoft manages development and operations.
2. **Access to the best technical talent:** Organizations can utilize the vast talent pool of Bellsoft who are certified in software programming for diverse languages, ERP applications and operating platforms.

3. **Functional expertise:** Outsourcing is not only for technology expertise; Bellsoft can add value by engaging teams having functional expertise in JD Edwards's enterprise solutions.
4. **Cost effectiveness:** Cost advantage is an attractive element of offshore development. The development costs could be 40-60% of onsite development costs. The development risk is shared between the organization and Bellsoft
5. **Quality:** Bellsoft's proven methodologies ensure that irrespective of the technology or the size of projects, development is done under strict quality assurance procedures.
6. **Time savings:** Offshore development takes advantage of the 'Follow-the-sun' approach, creating a virtual round-the-clock development & maintenance team to increase efficiency and improve productivity.
7. **Project management and control:** The progress of the project can be reviewed on a daily basis and the presence of an onsite team ensures issues resolution at the earliest.

The Model

Bellsoft has a development center in Mumbai. With an investment of more than half a million US dollars and a covered area of 6000 square feet, this center houses more than 100 software professionals.

The Process

Off-shore Development Process encompasses of the following tasks:

1. Onsite to offshore transition
2. Establishing network connectivity between client site and Bellsoft's Mumbai Development Center
3. Onsite coordination and review of the functional specifications
4. Development of objects offsite
5. Testing and Sign-Off

1. *Onsite to Offshore transition*

When the onsite team returns, a full knowledge sharing session is conducted for already trained persons offshore, so as to plug any holes from their understanding of the requirements and also to transfer the client specific requirements to the project team. The team then prepares an "Off-Shore Development Process" document. This document would broadly outline the various aspects of Off-shore Development like:

Development Model Structure

This section defines the project organization structure and describes the various roles and responsibilities of the individual team members.

Establishing Processes and Procedures

This section describes the processes and procedures that would ensure that the delivery model is efficient and streamlined, establishing inter-company agreements and gaining agreement between client site and offshore development center on all standards for development, hardware configuration, status reporting, documentation etc.

Delivery Model

This section defines the various steps from Business requirements to writing of the functional specs, analysis, review of specs, technical design, Development, Unit Testing, Client Testing and Integration etc.

Change Control

This section addresses issues like: Change of specifications while object is still under development, Object failed during testing, additional requirements after the development has been completed.

Development Guidelines

This part of the document deals with the reasons, urgency and probability of sending work offsite. The most urgent and complex objects would be developed onsite initially and later on when the process gets streamlined, a large percentage of work would be sent offshore.

Delivery Standards

This section deals with the Technical development standards, Functional and Technical Specification templates, Status Reports, Issue/Risk Logs etc.

In addition, documents are shared with the offshore team from the beginning, in the draft stages as well as the development stages. The offshore team is monitored and checked on their understanding of the requirements. The Offshore team constantly interacts with the onsite team and is updated/trained on new technologies. At times, sample functionality is assigned to the offshore team to deliver the solution.

2. *Establishing network connectivity between client site and Bellsoft's Mumbai Development Center*

A development environment (if one is not already existing) will be created in the client's JDE server. A few PCs with OneWorld development objects (Fat Client) would be setup and remote desktop management software like PC Anywhere will be installed on these systems. The offshore development team will login to these fat clients remotely to do development. There will be a high-speed link between client sit and offshore ADC. The networking teams of the ADC and the client site will coordinate with each other to ensure all the firewall and security issues are resolved and there is reasonable network response time for offshore developers logging in to the on-site servers

3. *Onsite coordination and review of the functional specifications*

One senior consultant would be stationed onsite for the first few weeks to facilitate communication between the onsite and offshore team. Apart from this the Onsite Consultant would also have the following responsibilities:

- Validate functional specifications
- Monitor Scope
- Validate client development estimates
- Assign development work to appropriate team
- Report and review weekly status with the client
- Facilitate issue resolution

4. *Development of objects off-shore*

The development guidelines and standards provided by the client will be strictly followed and inline comments will be added to make future enhancements easier. All the objects will be accompanied by a detailed documentation containing the Business Rules, The Tables and Business views involved, the Versions, Data Selections, Processing Options and event rule explanations. Unit Testing will be done using the Test Data provided by the client.

5. *Testing and SignOff*

After completing Unit Testing, the objects will be moved to the Test environment for Client Testing. The test team would validate the developed objects and if no bugs are found, give a final sign-off.

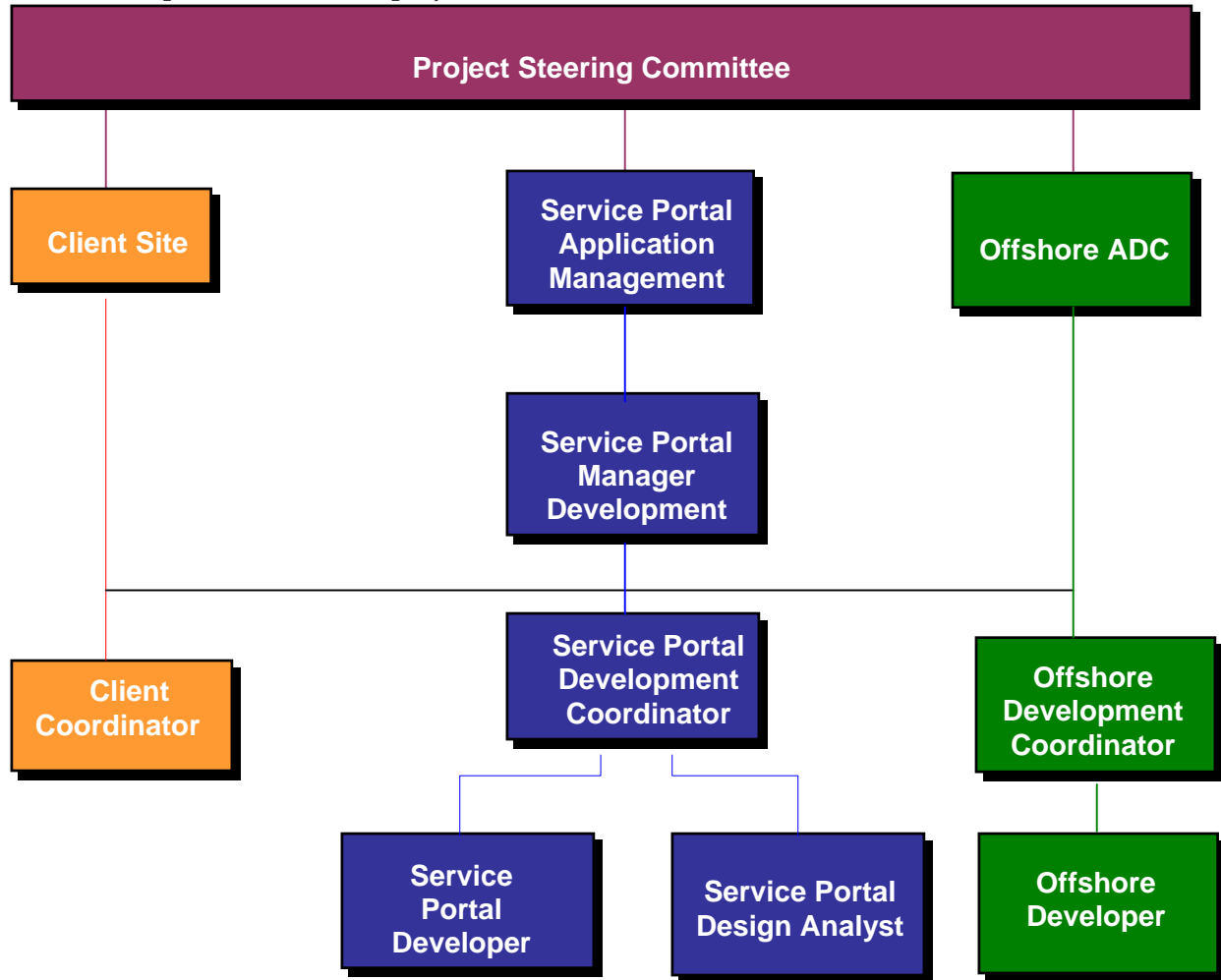
Project Organization

Bellsoft uses India based development centers as common resource centers for its worldwide resourcing needs. This allows Bellsoft to optimize its resource utilization. The staffing and resourcing is handled by resourcing executives. They have detailed metrics available indicating skills and experience levels of each staff member, the current project allocation and expected availability dates. These executives based on the metrics they manage do all project staffing. They assist Project Managers staff projects with right kind of skill sets and experience levels. Project managers keep the resource executives informed about their expected additional resourcing needs (based on their project plans). Project Managers also inform the resourcing executives about any staff they are removing/freeing-up from their projects at least two weeks in advance.

India based resourcing gives Bellsoft the flexibility of hiring new staff if required, as India has a large work force of trained manpower available. This helps Bellsoft ramp up teams if a particular project has additional staffing needs. In situations where Bellsoft has to ramp down the teams, these people move back to the non-utilized/free staff list for immediate allocation to other projects.

Bellsoft's experienced project managers with distributed development background have successfully delivered projects requiring distributed development environment.

An example of distributed project flow at Bellsoft:



The entire project is steered by Project Steering Committee. The Project Manager from Bellsoft and the Project Manager from the client, both report to the steering committee. Both the PM's have a set of teams working under them and are directly responsible for their teams.

The steering committee is composed of senior management people from Bellsoft and the client organization. The committee is responsible for the overall management, guidance and success of the relationship and the projects. The broad responsibilities of the steering committee are to:

- Provide direction on the business objectives of the project(s)
- Ensure management participation and commitment to the project
- Monitor project progress / success
- Document and solve schedule and budget impacts (project impacts)
- Review / resolves issues presented by the project managers