



Better usability for a leading enterprise applications software provider by migrating the ERP applications

CASE STUDY | APPLICATIONS | MANUFACTURING

Highlights

Migration of ERP applications from legacy software to web for a leading provider of enterprise applications software

Client Type

Enterprise Resource Planning (ISV)

Industry

Manufacturing

ERP for project focused organization

Type of Work

Application Development, Maintenance

Why Mphasis-HP Enterprise Services?

Better Architecture capability,

Understanding of usability,

Excellent processes

Skill Set

Infrastructure/technologies: BEA WebLogic Application Server version 9.2, Oracle 10G/ MS SQL Server2005, Actuate server for reporting 8.x, Java/J2EE, Eclipse

Hardware: HP

Network components: IPLC link

Software packages: Onsite PVCS for code version control, VSS for local document and code repository, BEA workshop IDE, ERwin for Data Modeling, JIRA for Issues and Bugs tracking, TOAD

Custom applications: Comprehensive Project Analysis and Support Solution (COMPASS - Mercury based tool) for Program Management

Client Quote

"Our experience with this team has been exemplary."

MphasisS helped migrate the ERP applications of a leading enterprise applications software provider and enhanced it resulting in better usability.

The Client

A leading provider of enterprise applications software built specifically for project-focused business

Objectives

The current client/server (c/s) system had to be architected due to lack of distributed access, poor usability, difficulties in roll out of upgrades, and expense of license fee incurred on Gupta SQL, and aging technology.

- Convert current c/s system to a new 3-tier J2EE architecture standard
- Restructure applications for better usability

Scope of the Solution

- Migrate ERP applications from legacy software to Web using Java/J2EE
- Maintain and enhance migrated ERP web applications

Challenges

- Compatibility with client/server product – This needs to be functionally similar and have to co-exist
- Embrace and enhance user experience - Maintain interactivity of c/s experience, enhance ease of use and visual appeal
- Faster time-to-market for new applications - Framework driven approach, Applications interconnected only through persistent data
- Seamless integration with other products - Clear separation between presentation and business layers
- Enhance security - Business logic on server
- Multiple version maintenance
- Tri-shore development

Solution

• Analysis

- Inventory: Decided what does / does not need to be converted, Identified common components
- Information Architecture: Classified and restructured applications based on commonly used workflows
- Framework roadmap definition

- **Design Recovery** - Reverse Engineering of client / server code to define the use cases

• Development

- Framework based development
- Pilot development to validate the framework

- Conveyer Belt process used for development
- Virtual Team model: Virtual Teams of client's Product Designers and MphasiS domain and technology experts

• Information Architecture

- To enhance web product value to the client's customers
- Initiative to study, classify applications of c/s product based on usability and redesign entire presentation layer for web product
- Information architects of MphasiS worked closely with client functional experts throughout this phase
- Proposed feature list that architecture would support for web product

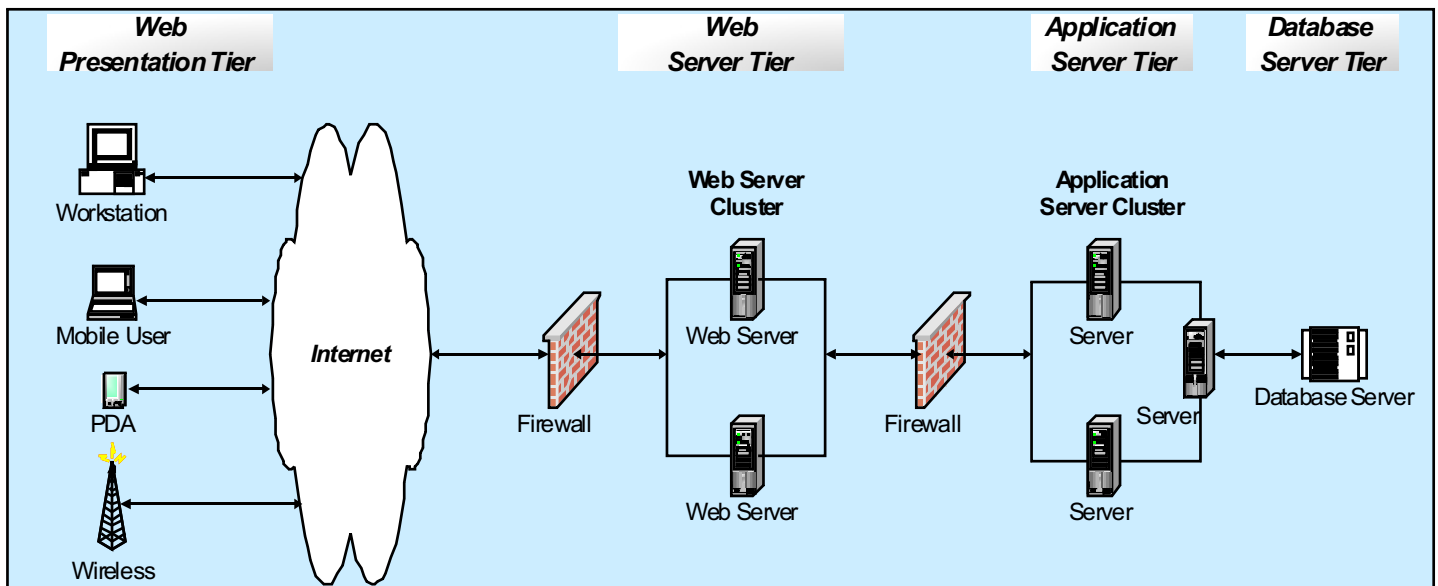
• Proof of Concept (POC)

- Proof of concept to develop 14 applications at start of project
- Initiative to validate relationship model, framework suitability, MphasiS' understanding of architecture and estimations
- Vindicated framework based solution approach
- Learning led to re-definition of contract

• Knowledge Management

- Collation of knowledge of various aspects of project into a repository and disseminate to ensure common understanding with entire team
- Critical element during product development, long running projects and when project team is unlikely to remain constant
- Created training material and documentation to be used to train entire team
- Identification and building of module level SMEs
- Trainings and discussion forums held to disseminate knowledge about architecture and product
- Devised a comprehensive training program for any new developer, tester or manager joining the project
- Hiring ERP Subject Matter Experts (SMEs) with industry background and aligning them to Costpoint product knowledge by providing on-site knowledge transfer

Architecture Diagram



• Innovation

- The following tools were developed by the team:
- Code Generator Tool: This tool is intended to generate the skeleton code for Costpoint web applications based on the design tool (RTOOL) settings. This tool reduced the development effort while migrating applications and validated the design tool settings and create word document with errors and warning messages
- DB Tool : Extracts database table names for given application



- Test Automation Framework: Reduction in testing efforts during product regression cycles, automating sanity testing of applications
- **Other tools used included:**
 - Checker: To check/validate the design tool properties for the applications
 - PMD: To check basic errors in the code
 - COBERTURA: To enhance code coverage during unit testing
 - A tool to create field mappings based on metadata extracted from c/s

Benefits

- Information architecture – Client received accolades in user conferences conducted in multiple locations
- Successful Product releases
- Agility
- Competitive advantage
- Reduction in cost
- Integration and implementation of new technologies
- Revenue growth

About Mphasis

Mphasis is a leading Applications, Infrastructure Technology, and BPO services provider. The company delivers real improvements in business performance for clients through a combination of technology know-how, domain and process expertise. With currently over 36,000 people, Mphasis services clients in Financial Services, Manufacturing, Healthcare, Communications, Media & Entertainment, Transportation & Logistics, Energy & Utilities, Consumer & Retail, and Governments around the world. To know more, visit www.mphasis.com.

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