

Case Study



Single Sign On and Portal Server Case Studies

The case for Single Sign On (SSO) and Portal Strategy has never been so compelling for large financial services firms. With the ever challenging economy and fierce competition to retain the client base, increase their assets under management and acquire new clients it has become imperative to leverage the internet channel to its full potential.

The Single Sign On (SSO) and Portal Strategy program was conceived by the ebusinessware Development Group (eDG) at Client. The aim of this program is to allow client's clients to access their account information and rich content across lines of business. This program will enable client to present a single consistent site on the Internet that goes across lines of business spanning the Retail Distribution Channel. This platform will also enable various self-service applications that can leverage the low cost Internet channel even further. Clients on the other hand will have one convenient username that will allow access to data related to their various relationships with the firm. It will also increase site stickiness by clients and enable various cross line of business marketing opportunities.

1. Overview

This is a classic problem of distributed computing where clients need access to numerous applications that are scattered across heterogeneous platforms within the firewall. Outside the firewall the story is slowly changing. With the advent of wireless networks and ever increasing plethora of devices, clients now demand access to these applications from these devices and offcourse the universal client - The Browser, SSO and Portal Strategy represent a solution set based on the well-known Access Integration solution pattern. This pattern solves the above problem in a very strategic manner.

Client is no different when it comes to the heterogeneous nature of the distributed computing environment that has evolved over the past several decades. To identify all backend applications and provide access to them via a single integrated platform requires a clear separation of business logic and display logic. It also requires enforcement of strict policies per application for authentication and authorization.

ebusinessware was invited to participate in the bidding process for this large program which is now nearing the pilot launch. We have developed several key modules on this program. The entire QA effort for the Portal Server based site is also completely outsourced to ebusinessware. This case study presents our experience with design, analysis, development and QA on this program. It also highlights the tremendous benefits and cost savings achieved through the use of our offshore development center in India.

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As always, our solution implementation handbook was opened and a set of templates was customized for this project. Checklists were created and requirements templates were customized and the relevant material was spread around the teams and users. Following are some of the deliverables that came out of the initial envisioning sessions:

- Client objectives summary
- Team Allocation - onsite and offshore
- Roles and responsibilities were defined and communicated to team members
- Quality goals were established in terms of number defects permitted per person/month
- Timelines were established, along with milestones and targets
- Risk tracking and risk management strategies were defined

eBusinessware believes in leveraging the industry knowledge available in leading trade publications in the form of Design and Architecture Patterns in solving common problems. As part of the pattern matching exercise it was realized that the solution lies in the well-known Access Integration Pattern.

Implementation of this pattern requires changes at various layers of the technology stack across lines of business. This work involves identifying the required applications, SSO enabling them, creating one single client data repository, authentication server, authorization LDAP server and most important of all a coherent design strategy.

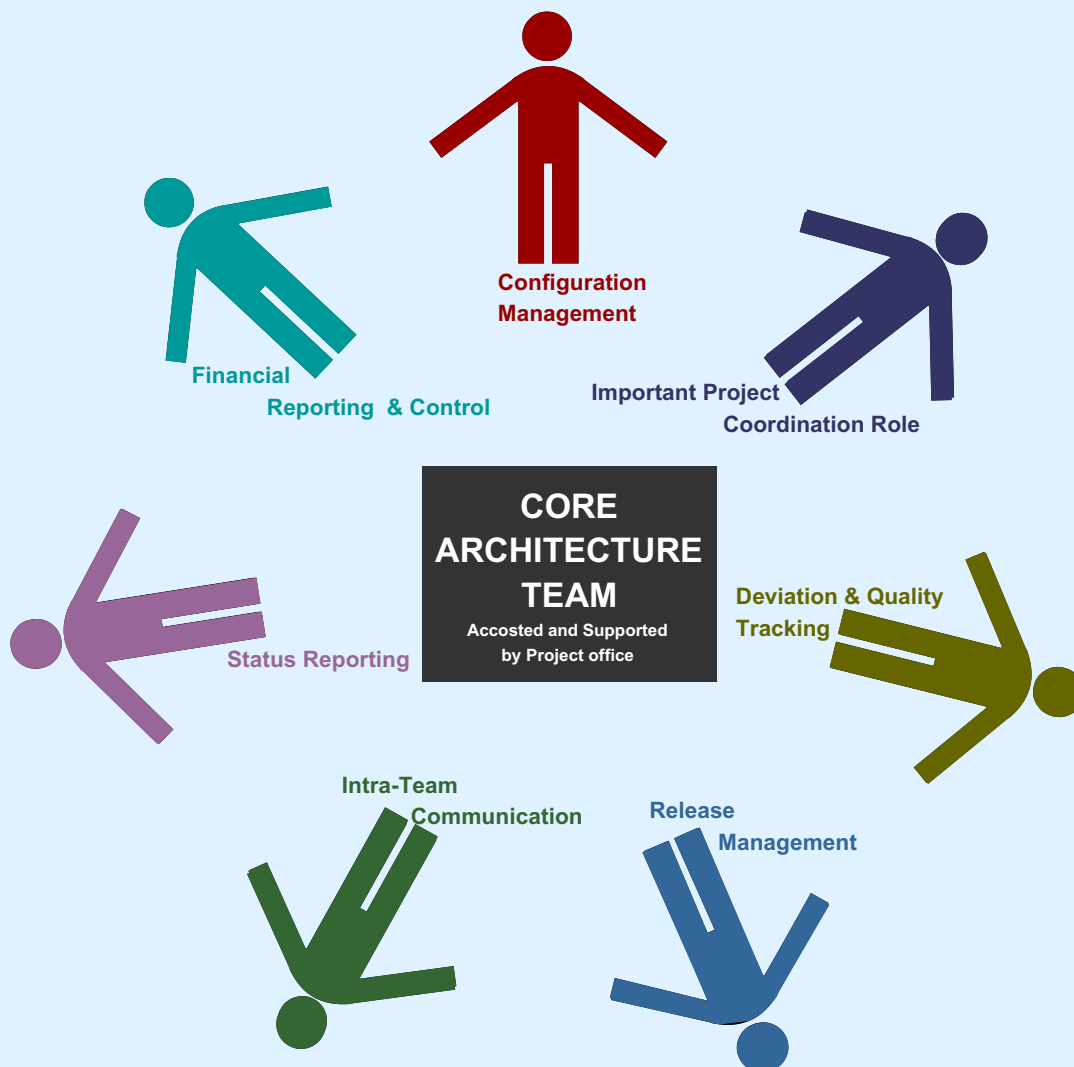
Using the UniRAD framework as a guideline, two high-level teams were formed to perform following two streams of activities in parallel.

Our teams were diversified, with in-depth technology and business / subject matter understanding. The streams were organized as described in the following figure:

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2. Team Organization

Teams were divided into two categories: Core Architecture and Supporting Project Office. While the Core Architecture Team was working on investigating the possibility of a solution set provider and provider's fit in the entire initiative from technical feasibility point of view, the Project Office was supporting it by complying with UniRAD guidelines and insulating it from any resulting distraction.



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Team members were asked to get back to the management with two types of checklists

- acknowledgement that they have individually read and understood the business requirements and technical specifications.
- Any gap (for training purpose) for them to be able to work at highest productivity in this project.

3. Making It Happen

eBusinessware employed UniRAD offshore development methodology on this project as described earlier. This requires strict adherence to a process framework that affects all aspects of software development.

- Registration
- Entitlements
- Banking Data Display
- Personalized Client Messaging
- Case Status Lookup Self-Service Application
- Beneficiary Change Self-Service Application
- QA Phase of the entire Portal Server based extensive Client Site including the management and oversight over four other internal product QA teams. This phase is currently underway and will result in a phased rollout of the entire platform.

The following section describes the challenges faced during this project and how eBusinessware's Technology and Process Leadership approach helped in meeting them.

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Challenges on the Development Phase of various modules

The team was confronted with a series of challenges as part of the implementation:

- Ensure overall design synergy across all modules because various teams including the internal IT teams and external vendor teams were implementing them.
- Portal Server technology skills are in shortage because the platform is leading edge and the industry is still arriving at vendor-neutral standards. Realizing this challenge upfront eBusinessware started a small team of top-notch Java programmers to start evaluating various Portal Server technologies including Apache Jetspeed and IBM Websphere Portal Server.
- Registration and Entitlements modules require very intimate knowledge of the proprietary ICAF infrastructure. Knowledge acquired on some past projects on this platform was leveraged.
- Another challenge was to work closely with various internal client departments and lines of business like Banking, Brokerage, Life Insurance and the Internal Common Technology Services team.
- Designing for data extraction, migration and matching across lines of business for Private Clients.
- Working towards very demanding time lines to complete these modules on time to be able to integrate with other systems that were are being changed/enhanced for this project.
- Leveraging message oriented middleware to communicate between heterogeneous platforms.

Challenges on the QA Phase of various modules

The team was confronted with a series of challenges as part of the QA Phase:

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- Ramping up a large team and bringing them up to speed on the vast business logic implemented on this project
- Provide overall management and oversight over the entire QA phase including four other internal QA teams. A formal process document was tailored based on eBusinessware's Unirad methodology. This process was further refined after review by all the teams.
- The web-based site to be tested has numerous transactional and content pages. A leading automated testing tool was selected based in eBusinessware's objective comparison for various leading vendor products.
- Defect tracking, prioritization and routing were soon realized to be challenges because of the number of teams and their distributed geographical locations. An internal Defect Tracking System was selected as a central repository for all teams to use. A common naming convention and a daily standing meeting with all the QA and Development Leads was proposed. This has now streamlined the process.
- Another challenge was to work closely with various internal client departments and lines of business like Banking, Brokerage, Life Insurance, Investments, Property and Casualty Insurance and the Internal Common Technology Services team.

4. Conclusion

This case study establishes the maturity of eBusinessware software development process framework that has enabled us scale at a very short notice and set this large project for an on time within budget completion. It also demonstrates our ability to partner with the client in developing a relationship based on trust. This prompted the complete outsourcing of the QA phase for the major part of this program - Portal Server. It also highlights the use of offshore development teams for Development and QA to offer significant cost reductions without sacrificing any quality.

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5. About ebusinessware

Ebusinessware's process discipline is based upon learning from the successes and challenges of past engagements and is rooted in the leading thoughts of quality driven metrics from movements such as the total quality or Six-Sigma initiatives. Borrowing from the existing literature on the subject, we are aiming for two types of quality:

- **Customer Quality** we want to ensure that customers receive the proposed benefits of outsourcing such as cost reduction, risk reduction.
- **Engineered Quality** we would like to ensure that we provide reduced defects in association with our service offering.

With the goal of continuously measuring and controlling quality, we arrive at a process transition that does not lose the drive towards innovation. We follow this framework because it enables ebusinessware to fulfill all three elements of our value proposition.

our value proposition

