Bank of Ireland:
Intranet QA and Service Integration

Daysha Consulting

Daysha Consultants have been working with Bank of Ireland for more than 10 years and have extensive knowledge of the hardware and software infrastructure. In that period we have been constantly involved in Programme and Project Management, QA and Service Integration work, ensuring that systems are ready for production and minimizing the risk of downtime or major errors.

Situation

Summary

The intranet for the Bank of Ireland is called Insite. It is both an information repository as well as an application platform. It is the gateway to a large range of systems and customized applications that the Bank uses for its day-to-day operations.

In 2004, the intranet was redesigned and the infrastructure and underlying content management solution was replaced. This work was carried out by a major systems integrator. But the QA, performance testing and infrastructure assessment was carried out by Daysha.

Customer Profile

The Bank of Ireland is a Financial Services Group with their headquarters in Dublin and operations located around the world. BOI has business in Asset Management, Retail Financial Services, Capital Markets, and UK Financial Services. Bank of Ireland has an impressive financial track record, with at least 15 years of consecutive profit growth and a low risk, strong capital base.

Problem

Context

In 2004, the Bank of Ireland had a large range of IT systems, both third-party and bespoke applications. Many of these applications were web based but at the time different authentication mechanisms were used for different applications which meant that users had to remember may different usernames and passwords. This led to a high volume of calls to the help desk for password resets.

The BOI also had a relatively under utilized resource – the intranet – which was in need of a major overhaul.

So in order to consolidate these applications, the intranet was re-designed to provide a single access point for web-based applications and a single sign-on authentication solution to all the

Solution Overview

Customer Profile

- Name: Bank of Ireland
- Location: Dublin, Ireland
- Sectors: Financial Services

Objectives

To ensure a successful launch of the company-wide intranet application platform through strong technical project management and the application of rigorous QA and Service Integration processes and standards.

Daysha Services Used

- Project Management
- Infrastructure
- QA
- Service Integration

Technologies

- Mercury Load Runner
- Apache Tomcat
- Documentum
- LDAP and DB2

Benefits

- Establishment of rigorous criteria to be met before system could be installed in production.
- Identification of critical bugs that otherwise would have resulted in system downtime.
- Providing advice on how to resolve the issues identified.

hosted applications. In addition a new enterprise content management system, Documentum, was introduced into the mix.

Objectives

- Insite is the intranet for the Bank of Ireland. A major overhaul of Insite was required that would mean it moved from a comparatively standard facility for information dissemination to become the central unifying vehicle for the large range of systems and bespoke applications used by the Bank to run its business.
- All Bank systems were to be accessed via Insite's single-sign-on central authentication.
- Insite's underlying infrastructure was to be completely redesigned and replaced to cater for the large usage increase and to deliver on the reliability and up time requirements of what was to become a mission critical system.
- The underlying content management technology, a mix of bespoke and packaged applications, was to be replaced by the enterprise class Documentum suite of products.
- Insite was to be interfaced directly with other mission critical systems such as the central LDAP server and production database clusters and load balancers.

Finding the Right Partner

The design and development of the new Insite was outsourced by the Bank to a major Systems Integrator. Daysha's role in the project was to place the functionally signed off edition of the system onto a production footing. Our previous systems assurance roles with the Bank provided us with a unique insight into typical system deployment requirements. As well as ensuring the system meets its own non-functional requirements in key areas such as performance, stability, resilience, reporting & monitoring, backup & recovery, and security management it is of particular importance that the deployed system doesn't effect the non-functional performance of systems it was to co-exist with in the production environment.

Solution

Process

Daysha designed a battery of what were referred to as Operation Acceptance Tests (OAT). These tests exercised the non-functional aspects of the new Insite, both with respect to its own performance and its impact on the performance of co-existing systems.

A sophisticated suite of test environments was designed and built to support OAT. In some cases it was not possible to build an end to end test environment as some of the components either didn't have a test system or the test system did not adequately reflect the behavior of the production system. In such cases it was necessary to book slots in production to complete certain OAT tests. A comprehensive suite of scripts were designed and built to automate the OAT. Mercury Interactive's LoadRunner tool was employed to drive a large percentage of the OAT tests.

The OAT uncovered a number of significant system defects. Eight rounds of performance tests were required, each one resulting in configuration changes and in some cases infrastructure changes, before the stated performance requirements were achieved. The resilience tests unearthed basic flaws in both the session management design and the memory management configuration. Perhaps most significant in the findings however was the impact on other systems. The granularity of the original interface with the core LDAP server resulted in adverse side-effects for the central directory synchronization service, a key part of the single sign-on solution. Left unchecked these unexpected side effects would have led to a loss of a number of mission critical systems, in turn resulting in significant financial penalties for the Bank.

Evaluation

Results and Benefits

The findings of OAT resulted in a significant amount of redevelopment of the system, and in turn delays and budget overruns for the project. But given the severity of the issues uncovered and the risk posed to other systems, this turned out to be small price to pay for avoiding the huge costs associated with unplanned production system outages.

The benefits of the OAT process, led by Daysha QA and Service Integration consultants, is that the risk of systems being introduced into production before they are ready, and with major defects, is significantly reduced. Combined with Daysha's extensive infrastructure experience and deep understanding of technology, we were not only able to perform the testing process required, but we were also able to advise on the solution design and changes required.

For More Information

For more information about Daysha Consulting services, contact us through info@dayshaconsulting.com.
To access information using the World Wide Web, go to: http://www.dayshaconsulting.com