



Case Study: Dimension Data - V3 Uptime Portal for GSOA

About the Company

Dimension Data (DD) is a global IT services and solution provider that helps customers plan, build, and support their IT infrastructures. The company is listed on the London Stock Exchange [DDT LSE] and operates in 30 countries on five continents. DD applies its more than 23 years of experience in technology infrastructures, networking, security, operating environments, storage, and contact center technologies and its unique blend of skills in integration, consulting and managed services. The aim is to create solutions that can help clients to realize a greater return on their IT investments. To achieve this, DD delivers solutions using its proprietary Application Network architectural framework - **Global Services Operating Architecture (GSOA)** - and its expertise in networking, application integration and managed services.

Project Description

To help customers to interact with it, GSOA provides portals per service; these portals provide users with a view into the GSOA operations environment. Each Portal is customer specific, which guarantees that customer data is secure from other customers. Users can navigate through the portal menu and view information from reports to contact lists, from user guides to real-time graphs of operational performance.

GSOA has evolved over the last half decade into a feature rich services platform, with an increasing customer base. V1 or Version 1 Uptime portals used C, CGI and Perl. CGI is one of the oldest web technologies and has several limitations. Development and maintenance effort using a third generation language like C is high. The existing architecture had inherent drawbacks due to which improving the current portals have been difficult. Due to this limitation, development of V2 or Version 2 portal was undertaken over 3 years ago, using some of the latest web technologies such as Microsoft ASP.net and J2EE. However the V2 Uptime portal functionality could only find limited acceptance in DD due to performance and reliability issues.

Nihilent carried out an exercise to clean up the existing V2 Uptime portal to improve its stability and performance. One of the key findings was that some of the major V2 limitations could not be overcome without changing the underlying architecture.

Nihilent proposed a rearchitecture of the existing GSOA V1 Portal interfaces to support DD's customers, and to overcome the limitations of V1 & V2, using J2EE technologies. This would allow the creation of the basic framework for DD for delivering new services and solutions, including ITIL compliant network management.

Business Challenges

- The main challenge was to consolidate all discrete customers portals in a DD region into a single V3 Portal per region. This would integrate with the global Siebel instance.
- Due to resilience and scalability issues with Tibco, it was decided to interface with Siebel using Java Data Beans.
- A constraint imposed was to retain the existing backend portal architecture and network access, such that the portal rewrite was limited to UI and data layers.
- There was a lot of region-specific development on top of the V1 portals, which had to be integrated into the new Java portals.
- The UI design was required to be compliant with the DD corporate website standard, which was significantly different from the V1 or V2 UI.



Nihilent's Role

Nihilent drove the entire reengineering initiative, from architecture, UI design and development, as well as work on the future Portal roadmap.

Key features of Nihilent's Agile based development methodology included:

- Test Driven Development (TDD)
- Continuous Integration
- Pair Programming
- Siebel integration using Siebel Java Beans.

Platform and Technologies

- J2EE using Spring framework
- Struts
- SiteMesh
- Junit, Canoo, Httpunit, Mock objects, dbunit
- Appfuse, Eclipse, Tomcat

Business Benefits Delivered

- Secure framework for customer access to DD managed devices in their networks, and to Siebel based ticketing via the portals
- Stable platform for future portal development on new solutions and services, including ITIL compliance
- Reduction in hardware costs due to consolidation of customer portals into a single portal per region
- Reduction in portal support costs, due to standardization of technology and major improvement in system stability
- Positive feedback from customers due to dramatically improved performance and usability