eAudit Application

The eAudit application allows both internal auditors and external auditors to review a sampling of transaction level information for the purpose of tax audits. System data is loaded through various load processes, and may be edited and viewed in a "dashboard" format within the application. The workflow and status of the reviews and supporting documents are updated and tracked through the application.

The application, from a functional, end user perspective, supports Sales & Purchase transactions as well as Lease transactions as a single application. However, from a technical perspective, the system is implemented as two separate applications, which are tightly integrated to appear "seamless".

The first application, which supports the Sales & Purchase transactions, is based on the original architecture. The second application, with a revised architecture, supports Lease transactions. Both applications are Java based applications that share a SQL Server database. However, the Sales & Purchase application runs the Struts framework with a direct SQL data access layer, and the Lease application uses the Spring framework and Hibernate ORM.

User access is based on the application roles assigned to the user. The following are roles in the application:

- Analyst
- Auditor
- Business

Audit Upload and Extract Tool

Extract tool provides a way of extracting a common Access File from various dataware house CMs. Its Swing based application to prepared input file for Lease application.

Upload tool feed input to a particular review against an audit. It uploads Account and Asset level details from Assess file and prepare an audit for review.

Application Environment

All the application has been set up for 3 environment named Dev, Stage and Production. User will be provided UAT and QA on stage environment. CLIENT has provided each application to internal and external accessibility. Therefore application has been deployed and kept in synchronization for internal network and external network (outside world).

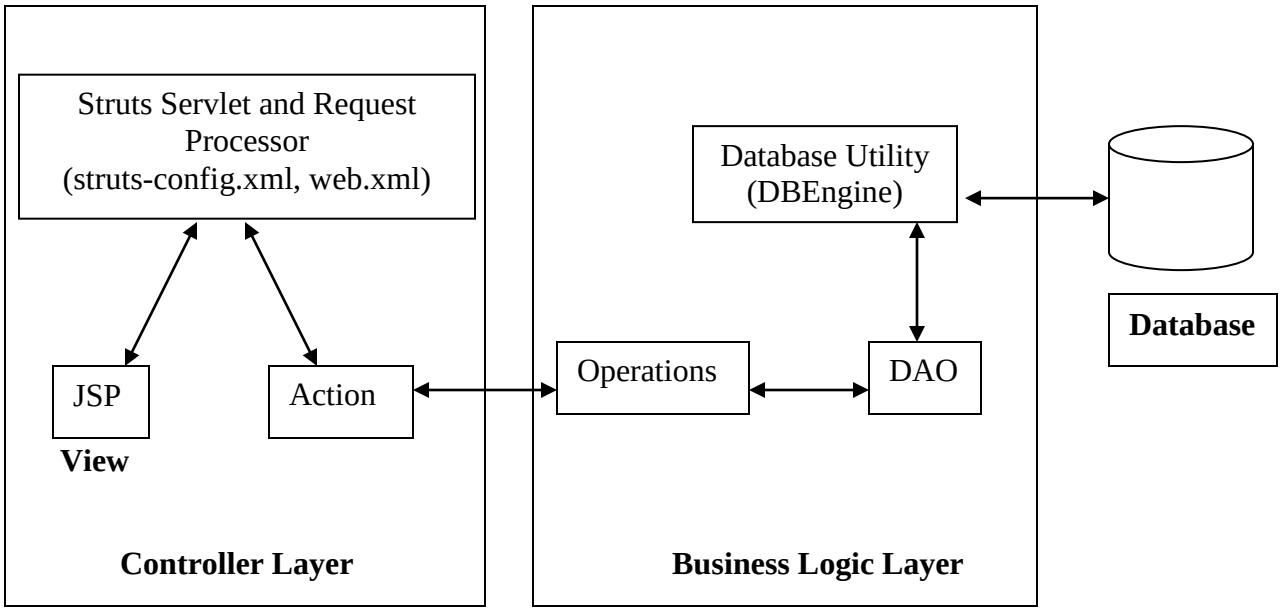
Technology

Front Tier : Spring MVC , Struts, Swing , JSTL, DWR(AJAX calls)

Middle Tier : Spring Controller, CMP , data ware houses- Informatics, Hibernate

Back End : MS SQL Server 2007, Oracle 10g, Web services to ISSI(exemption certificate provider)

Business Logic

The Sales & Purchase application connects the Struts Framework to the Business Logic Layer by calling Operations classes from the Action classes. In effect, the Operations classes group Actions into logical units of processing, roughly at the DAO level of abstraction. DAO (Data Access Objects) manage the database access (via the DBEngine database utility class) of business/objects, as well business rules.

Note that Sales & Purchasing does not use the Struts DispatchAction feature. Rather, view events are simply grouped into actions. The actions check a page parameter to determine event specific logic to execute within the action. Additionally, the user's role (stored in the session) is typically checked for role specific processing.