



Leave Application Solution



BizTalk Server - Case Study

The Summary

Client had an existing Leave Application Solution. This solution was outdated as it did not provide a facility of integration with other applications nor did it had a facility of changing the business rules defined in the Leave Application System subject to change based on the company policy from time to time which was subject to change based on the company policy from time to time. To automate the entire Leave Application process and to meet the above requirements, client turned to AG Technologies who proposed a solution using BizTalk Server 2004.

The Client

Our client is the largest bank of the country in terms of Assets, Advances, Deposits, Net profit, Branches and employees and also has advance investment NRI deposit Schemes

The Business Requirement

- Client was managing the leave approval process using a windows based application. It required individual client m/c installations and up gradations on time-to-time basis.
- This application was developed for 2 levels of approvers. Extending the levels further was not possible.
- This application code had lot of hard coding, thus making it less reusable/configurable with a higher maintenance cost attached for the same.
- As the business rules defined in this system were subject to change based on the company policy from time to time, there was a need to make them configurable. Hence, there was a requirement to have an EAI tool like Microsoft BizTalk Server 2004, which comes with Business Rules Composer and Engine providing the same.
- Microsoft Access database was used in this application as database package. MS Access not being a RDBMS resulted into system performance degradation as the volume of the database increased. Hence, there was a requirement to shift to RDBMS like Microsoft SQL Server.
- Also, the Leave Application system was just interfaced with the Tour and Attendance system and this was not integrated with other business systems of the company. So from future integration point of view with heterogeneous environment around, it became utmost important to have an Enterprise Application Integration (EAI) tool to be used to take care of such integrations.

Project Summary

Industry: Banking

Client Profile: Largest Bank of the Country

Business Requirements:

Client wanted to automate the entire process of Leave Application and also provide a means of integrating the system with other business systems.

Solution:

The above requirements were met using BizTalk Server 2004 which automated the Entire Leave Application process, which could be integrated with other applications and also enabled changing the leave rules used by the Leave Application Solution



The Solution

Leave Application Solution was introduced to resolve the problem areas stated above. Primarily it was focused towards streamlining the Leave Approval Workflow existing in most of the companies.

LAS solution provided the following aspects:

- Browser based access to clients
- N level of configurable leave approval workflow
- Configurable leave rules
 - Incorporating custom rules for the following leave type and new user-defined leave types
 - Casual Leave (CL)
 - Un-availed Casual Leave (UCL)
 - Privilege Leave (PL)
 - Sick Leave (SL)
 - Maternity Leave (ML)
 - Study Leave (StL)
 - Compensatory Off
- Flexibility of adding new leave types along with their business rules
- Integration with Active Directory Services for User level security features
- Integration with Exchange Server for,
 - Email notification and alert to supervisor/ manager for each leave submission by employees
 - Email notification to the applicant about the status of the leave application at each stage.
 - Setting the applicant's calendar for the approved leave.

Solution Benefits

- Configure the role wise leave approval workflow as per requirements.
- Change the leave rules used by the Leave Application Solution.
- Sending the informative alerts and tasks to the respective approvers about the pending leave applications.
- Calendar feature of the MS Outlook for indicating employee on leave.



The LAS Application also comes with Timesheet and Expense Management functionalities.

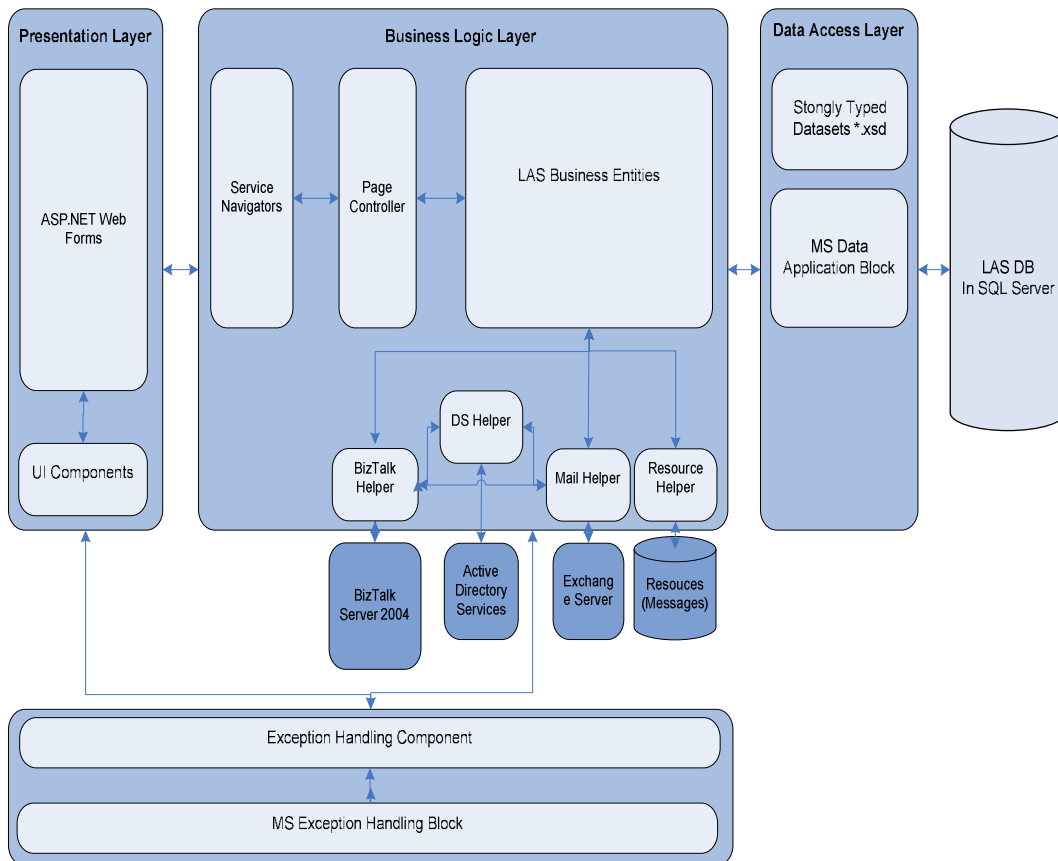
Time Sheet has the following features:

- Project Details Maintenance
- Resource Allocation to projects
- Task Management
- Daily Timesheet Management
- Timesheet Approval Workflow
- Various Reports like Periodic Drilldown Effort Reports, Individual Employee Effort Report

The Expense Management enables expense details of food, travel etc. to be captured in the system and can be passed as per approval workflow

The Solution Architecture

LEAVE APPLICATION SOLUTION ARCHITECTURE





Technology and Tools:

Operating System:

- Microsoft Windows Server 2003

Framework:

- Microsoft .Net Framework (ASP.NET, C#)
- Microsoft Active Directory Services
- Microsoft BizTalk Server 2004
- Microsoft Exchange Server 2003

Database

- Microsoft SQL Server 2000

3rd Party integration:

- None

The Solution Benefit

- Higher Availability
- Accelerated information Processing
 - People involved in the approval process are informed in real time by e-mail and alerts about the pending approval actions they are supposed to perform. This eliminates the waiting period largely.
- Real-time follow-up for applicants
 - The requester is informed in real time about the application status after each approval stage. This makes follow up far effective.
- Quick availability of leave application history/reports for further analysis.
- Higher Maintainability
 - Authorized client personnel can change leave rules at their own convenience without involving any technical person.
 - Most of the LAS feature like Email templates; Data paging size etc are configurable. This parameterization increases the maintainability of the LAS.
- Extensible
 - LAS Approval framework supports lot of other functionalities like Timesheet, Expense Management, Appraisal, Tour Approval etc. This will help clients to operate many of the business needs in a single framework.

