

Enhanced Fraud Monitoring - Business End Solution PREsolutions

AREA OF COMPETENCES: Business End Solution

INDUSTRY: Finance and Banking

CHALLENGE



The main objective of the project is real time detection of sales fraud in the prepaid retail area. A significant volume of transaction data is acquired and analyzed in order to detect various types of frauds (100000+ transactions per day). The difficulty is to implement the ability to process such vast amount of data in due time (data is sampled by minute and fraud must be detected in at most 5 minutes).

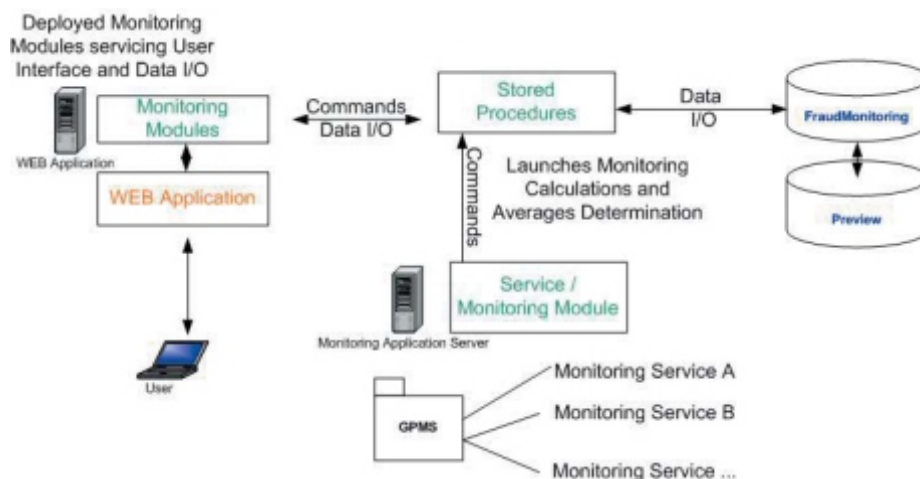
SOLUTION

The solution is based on implementation of 3 tier architecture. The database was vertically divided. All computations that could be performed locally on either of the vertical “data slices” were placed into stored procedures. The business components use the multithreaded approach to triggering the corresponding calculations. All business components were implemented as C# remoting objects and hosted by Windows



services. The presentation layer is an ASP .NET application that manages and exposes the remoting interfaces of the business objects. Code optimizations were performed to ensure best performance, in the context of vast input data and critical response time. A class hierarchy specially designed to support fraud monitoring was implemented. Additional monitoring patterns are easy to add to the monitoring framework. The development continues in the context of an existing complex application platform (several applications running concurrently and co-operatively to ensure data acquisition and processing).

Below is presented the intended deployment architecture:



DATA ON PROJECT SIZE, DURATION AND ESTIMATIONS:

Project used 4 resources: 1 senior developer/architect, 2 software developers, and 1 white box tester/software developer.

A different development methodology was requested by the customer, that was SCRUM methodology. This means that development was done in sprints that took around 30 days, and included a smaller number of requirements than the total requirements initial specified.

Estimation methodology used was based on expert judgment from our senior developer, as well as on previous experience in the project of the customer.

Work was developed on existing code base from customer.

ABOUT OUR CLIENT

PRE Solutions, Inc., founded by ITC Holding Company in August 2000, focused on developing fast and easy-to-use electronic methods for delivering prepaid services. PRE Solutions, Inc. is leading a rapid evolution within the prepaid services industry.

Their systems connect retailers to the prepaid product providers.