



## Case Study

Global Clients: ABN Amro Bank |  
Barclays | Capita | Citigroup | DBS  
Bank | GE Consumer Finance |  
HBOS | HDFC Bank | TransUnion |  
True Credit | UOB Bank | Vodafone  
| Wausau Financial Systems

# Corporate Dashboard and Executive Information System

## Background

The customer is one of the largest financial institutions in the World. They are also the largest credit card issuers in the world. The Group manages the Operations of their Credit Card business in 42 countries across Asia, Europe, Australia & Latin America from the International Card Centre situated in Singapore, with operational systems spread across multiple Data Centres in Asia & Europe.

## Problem Analysis

The credit cards business uses either VisionPlus or CardPac in these countries to run their business along with several customer specific enhancements and add-on sub systems. For example the credit card businesses in Latin America and Europe ran on the VisionPlus system, where using the QMF (Query Management Facility) package, users extracted information from the mainframe systems.

This information was extracted using predefined queries into an Excel spreadsheet for formatting and reporting. There was very little web enabling, most reporting was by 'pre-defined queries' and users still had to do processing in Excel for report generation. Other countries (e.g., Asia Pacific region) that run on CardPac did not have any data warehousing applications.

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The Bank felt the need to build a solution with the following capabilities:

- Integrating information from 42 different countries that have multiple Card products & currencies to meet the reporting needs of Senior Executives across the 4 regions-Asia, Europe, Latin America & Australia.
- A robust architecture that can hold and process a 20 million card base and provide MIS within 4 hours from the time of receipt of the feeds.
- 24\*7 availability of MIS with drill-down and 'peel the onion' features
- Web enabling the report generation and dissemination
- An application system that is scalable, flexible, and adaptable for multiple countries.

## Solution

Saksoft Business Consulting Group studied the existing Vision Plus & CardPac systems functionalities followed by series of meetings with various business managers of the Card Centre at Singapore. The result of the exercise was feed extracts finalization and a common feed structure to cater to both the Vision Plus & CardPac systems.

Saksoft technical team had a series of interactions with ICC technical teams and proposed an MIS application built on a warehouse having the following major components, each designed for specific jobs:

- File Transmission from various operational and other systems
- A conversion Tool to quickly convert the EBCDIC feed files into ASCII feeds
- A Transformation & Loading (Sak DCOL) Tool
- A Comprehensive DB Architecture



- An Internal/External Component Based Process Engine
- A Web/Application Server with Reusable Components
- A Web Based Query Tool
- Standardized, predefined information for reports

## Technology

The Technical architecture involves Java™ /HTML as front-end, PL/SQL as back end data processing tool and use of Java Beans and IBM Web Sphere™ as middleware. The MIS system is hosted on Oracle™ 9i on a Sun Enterprise server with Solaris™ Operating system.

Given the volume and very strict timelines for processing, Saksoft Technical team used Oracle's advanced technical features like Partitioning, Materialised Views, Bit map indexes and its ability to talk to multiple databases in this implementation. The volume of data stored in all 6 Databases put together will be a few hundred GBs. The number of users who access this system varies from time to time as the users are from different time zones. The critical aspect of this design was to get a best mix of loading and querying performance as all these data comes from different regions on varying time window. For example when one county's users are actively querying the data, the application may be loading few other countries data into the system. Some of the key metrics are processed on a daily basis and that made the processing window shorter than typically available for such batch processing.

The architecture used in the application was a typical 'n' tier that provides the end-users the ability to play around with the data using standard OLAP like features on thin client. The modular approach was followed for the tools integration and the MVC design on the front end makes it simpler and easier for the client to manage and maintain the application and to enhance the application features as and when business needs change.



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## Result

The solution was designed and developed in less than six months. Saksoft also played an important role in implementing it globally across 40+ countries. The solution provides senior management as well business a lot of key information covering various performance metrics globally, regionally and locally. All of them incorporate drill downs across geographies, time & products. The senior management is very appreciative of this application as it has dramatically reduced the 'wait' for key information and helped them in bringing standardization across several countries.

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