

CIM Concepts Custom Application Development

Case Study: Customer Loyalty System

An industry leader in turnkey customer loyalty programs** was using a dated MS Access application as the centerpiece of this business. They needed to upgrade to an enterprise-class solution to support growing customer requirements.

CIM Concepts replaced the MS Access application with a new system following the Microsoft multi-tier paradigm. The new system addresses the client's current needs and is flexible enough to adapt and grow with the company.

Challenges

- Company growing quickly
- Critical needs to be responsive to partners and customers
- Provide flexibility to adapt to company's growth and expanding offerings

Critical Issue

- Current system used outdated technology
- Technology had limited capacity and limited accessibility
- System required considerable manual manipulations to load data, increasing risk of human error

Solution

- CIM Concepts consulted with client to understand needs and future growth and expansion plans
- CCI designed and implemented custom application solution based on Microsoft 3-tier model
- New database design implemented in MS SQL Server, with business rules coded in Visual Basic as COM+ components
- Thin client user interface using HTML and ASP pages
- Application provides for two methods of loading data: interactively (via web pages) and automatically (via batch load files)
- Provided defined reports and ad hoc reports

Result

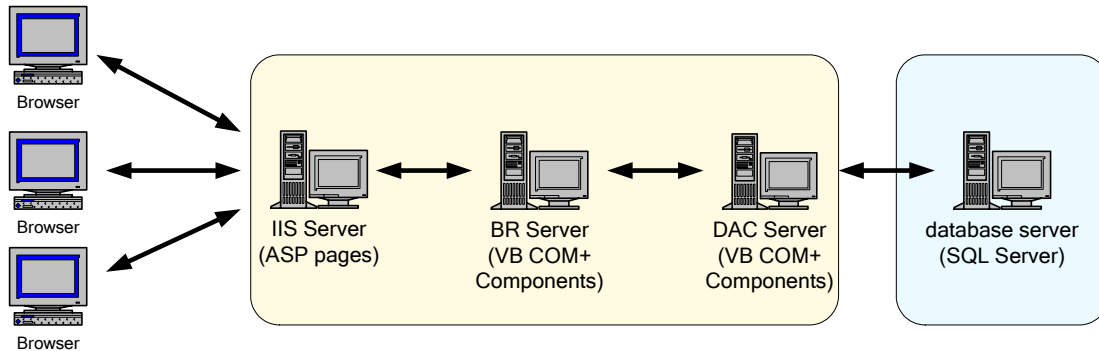
- Reduced manpower required to support older system
- Improved data integrity
- Increased partner and customer accessibility to data allowing improved market share

**Customer loyalty programs allow customers to earn points toward a reward with each store purchase. Customers typically carry membership cards or key ring fobs encoded with their account information, which is swiped at the checkout counter as they purchase consumer goods or services at a participating retail location.



Project Details:

CIM Concepts Inc. designed and implemented a customer loyalty application based on the Microsoft 3-tier model. A new database was designed and implemented on MS SQL Server. The business rules were implemented in MS Visual Basic as COM+ components. A true thin-client user interface, requiring no client software installs, was implemented using HTML and ASP pages.



Although the client initially installed the application across only two servers, the application design supports four different server layers, so it can scale easily as usage increases.

The application provides two methods of loading data in the system: interactively via web pages and automatically via batch load files. Database templates are employed to define load content, making it possible to tell the system how to process incoming data, rather than manually manipulating data to match the application's requirements. The feature significantly reduces the amount of manpower required to import data as well as increased the data integrity by limiting human interaction.

The user can extract information from the system using pre-fabricated reports, or they may generate and save their own reports and queries using the application's web-based query builder.

The flexible design has already proved its usefulness on several occasions. Using configuration parameters, the client has been able to easily extend the application to address new business needs. CIM Concepts has been able to easily add extensions to the base system to address more dramatic changes such as interfacing new field equipment with a new XML protocol, and offering a redemption certificate program.

Client Experience:

According to the client's head system analyst, "We needed to upgrade our system because we were outgrowing the limitations of MS Access. We wanted to think ahead with a flexible system that would not box us in."

"The primary advantage of the [CIM Concepts] application has been the flexibility to add new features like the gift certificates and tiered rewards programs. The application was designed well in the beginning, so it can stretch to accommodate the next new idea that [our CEO] and [our chief of marketing] have. Hooks have been built into the system to allow direct internet access by our dealer customers, if we decide to move in that direction in the future."

Sample application screens:

Main Menu
Operator: [Redacted]

Member Partner Operations Reports Support

- Add a New Member
- Enroll New Members
- Customer Service Support
- View or Update Member Demographics
- View or Update Qualifying Item

Member Selection
Operator: [Redacted]

Member Partner Operations Reports Support

Query Reset

Last Name	First Name	Address Info	City	ST.	Phone Nbr	Birth Dt.	Gender
flintst%							
Flintstone, Fred		100 Rocky Rd.	Bedrock				M
Flintstone, Wilma		123 Rocky Rd.	Bedrock				F

Enrollment Control Panel
Operator: [Redacted] 1.9.0 11/02/06

Member Partner Operations Reports Support

Member

- Member Name: Flintstone, Fred
- Address: 100 Rocky Rd.
- Phone:
- Type: CUST [v] [New] [Select]

Co-Member

- Co-Member Name: Flintstone, Wilma
- Address: 123 Rocky Rd.
- Phone:
- Normal Token ID [New] [Select]

Buyer

- Name:
- Address:
- Phone:
- [New] [Select]

Program

- Program Name:
- Description:
- Start Date:
- [Last] [Select]

Account

- Account ID:
- Program Name:
- Program Type:
- Level: [v]

Item

- Qualifying Item:
- Identifying Nbr:
- Partner Name:
- Type: DEMO [v]

Sales Info

- Loyalty Pkg Salesperson:
- Qual Item Salesperson:
- Partner:
- Customer Nos.

Tokens

- Tokens to be Created
- #1-
- #2-
- Loading Balance
- #1-
- #2-

Enroll

- Member: Flintstone, Fred
- Co-Member: Flintstone, Wilma
- Effective: 3/29/2006
- [Modify]

Incomplete & Required [Red] Optional [Yellow] Completed [Green] [Abort]