

**A New World of Efficiency: Design  
and Development of Smart & Final's  
Store Management System**



# Table of Contents

Situation	2
Solution	2
Results	3

## Situation

Smart&Final is a national retailer that operates about 250 stores in the US. Its positioning is toward small business owners and customers who buy groceries in bulk.

Most of the store operation systems relied on Mainframe programs written in the 80s and were limiting Smart&Final's ability to open new stores and to enhance its supply chain processes.

It was time to rebuild the internal systems, starting with a key business process used to ask Store Managers to order products for promotions. Corporate buyers create the promotions centrally. They determine the products, the stores and the promotional prices to apply. Once the promotion is defined (including the start and end dates) in the system, the Store Managers are allowed to enter quantities they want to order for the products that are part of it.

## Solution

We were asked to lead the effort to build a new, custom web-based application to support the business process that had been selected as the "pilot" for the complete overhaul of the entire computer system. The client wanted a web-based application (vs. a software deployment.) Additionally, we had to pay careful attention to the volume of data transferred over the network as the stores used a satellite connection that had a high latency.

We developed the new application using ASP.NET on Windows 2003 and Oracle 10g on AIX in the back end. The new system is fully integrated with the other systems and receives nightly updates on Promotions and the different items related to that. The update process is fully automated and sends alerts to system administrators if something does not load correctly.

The new application is fully secured and enforces access rights so that Store Managers can only access the data pertaining to their store, District Managers can only access the data for their district, etc. A few corporate users have extensive access rights in the system and those rights are centrally administered by a system administrator.

The new system is used everyday by about 300 users and the performance is excellent thanks to specific optimization created to meet the constraints imposed by the high latency of the satellite connection.

With this project, we also took the opportunity to implement the delivery schedule feature that allows Store Managers to order items on specific dates when trucks will deliver products from the Distribution Centers. This adds a lot of flexibility to the business and allows the supply chain to better anticipate the delivery spikes.

Orders are consolidated once the time window for ordering closes and allows buyers to create purchase orders.

The new system also offers business reports to analyze what goods sold vs. forecasted sales, comparative store performance and historical detail of past promotional events.

## Results

The results can be measured on multiple points:

- ▶ The new system is live and is a vibrant success. This proved that the approach chosen was sound and made complete sense for Smart&Final. It also proved that the technology chosen made business sense as the new system was developed in 12 months by three people working full time on it (for Phase I.)
- ▶ Instead of having two anonymous delivery dates to order their products, large stores can now use the full potential of distributing the load across all their delivery dates. Supply chain teams now have a much more realistic vision of what the labor needs are and can anticipate spikes generated by large promotions.
- ▶ Buyers get a much better picture of how their promotions are performing by running reports built on a data warehouse that compares their forecast with actual sales.
- ▶ District Managers now have visibility about the orders their Store Managers have entered into the system and can override the values if necessary.
- ▶ The response time and reliability of the system provides users with a worry-free environment — they know they can enter their data quickly, efficiently and with great confidence that the system won't lose their data.
- ▶ Senior management has decided to now port the entire computer system supporting the business to this new platform and has trained twenty employees to carry out the decision. The new system is now the backbone of Smart&Final's operations.