

Modernizing the supply chain for a competitive advantage

How we revitalized the supply chain of a leading American department store chain, enabling them to compete in the demanding industry landscape

Case study



Overview

A core transformation

Our client is a large US-based department store chain with 600+ stores, ten distribution centers, and over one million SKUs. The retail industry was undergoing a transformation due to new-age startups and changes in consumer demands and expectations. To meet these demands, our client realized that it was essential to transform the core of its business model and attain the required flexibility by shifting to the right technological solutions.

We helped our client become agile with its business model, increase efficiency and achieve 40-45% infrastructure cost reduction with augmentations to its supply chain through application transformation.



Challenges

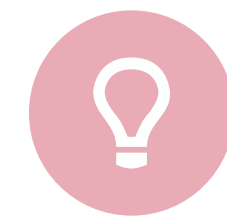
Supply chained to legacy

Our client wanted to launch new lines of businesses like curbside pickup, same-day delivery, and more, to meet the changing expectations of customers. One of the bottlenecks to achieve this was an inflexible and under-optimized supply chain.

The reason for this rigidity was the legacy warehouse management system that the supply chain operated on. An outdated supply chain platform was also preventing the enablement of the supply chain on demand. It was also leading to wasteful use

of technology resources, resulting in higher maintenance and usage costs. The system needed an overhaul to cater to critical business needs.

However, the task was not as easy as buying and installing an out-of-the-box warehouse management solution. The unavailability of a commercial off-the-shelf (COTS) warehouse management solution, that could cover end-to-end needs and essential customizations, made this project a challenge.



The solution

Breaking down the chain

We took a three-phased approach to infuse resiliency in our client's supply chain and customize a cutting-edge warehouse platform to its unique needs:

Transformation

We shifted the entire system of products towards an online business supply chain platform using an event-driven microservices architecture. This made customizations easier and more scalable.

Optimization

We implemented a COTS warehouse management solution on the cloud. High-end customizations to address product white spaces and incorporation of homegrown IP in this solution were made possible due to our application transformation expertise. We also offered optimized support, including 24/7 product and platform support, L2/L3 support, peak planning, and a dedicated control room, for a smooth transition and successful adoption.

Cloudification

All the existing and new services were hosted on or shifted to Google Cloud for successful and cloud-native implementation of the single supply chain platform. This resulted in significant savings by tackling the issue of inefficient usage and maintenance of infrastructure.

By the project's final phase, we created a consolidated, GCP-led one warehouse management platform for all business units by replacing the old monolith.

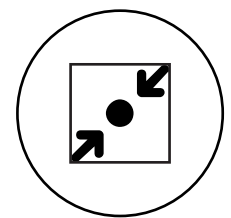


The impact

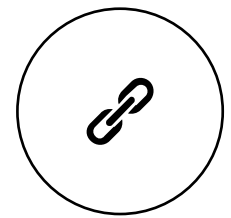
Meeting the demands of expectation

This massive transformation enabled easier scaling up and scaling down of the supply chain depending on the client's needs. This flexibility, coupled with the cloudification, gave our client the confidence to launch new business lines, including straight-through processing, curbside pickup, and same-day delivery, critical for improved consumer experience.

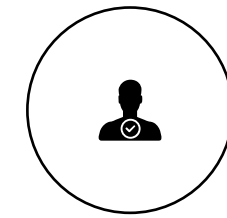
Some other key benefits of the transformation included:



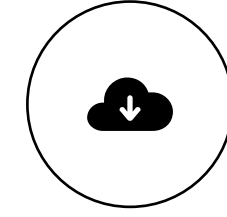
Creation of a scalable platform that could handle over 1.5 million orders in a single peak day



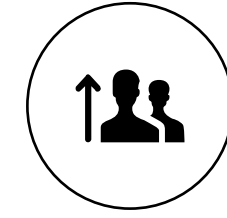
Establishment of over 250 million cubic inches of additional space in warehouses through supply chain optimization



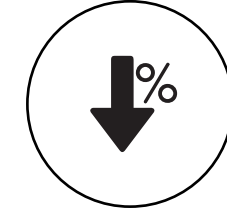
Improvement in picking productivity by 15 percent



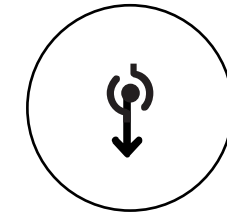
About 40-45% reduction in infrastructural cost by moving the on-premise systems to the cloud



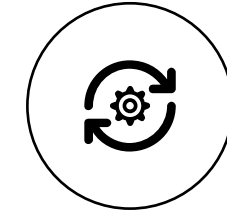
Nearly 40% increase in order allocations through an optimized algorithm



Up to 67% reduction in integration errors between warehouses and different commerce systems improving the supply chain resiliency



Implementation of CI/CD to reduce release cycles from 6 months to 1 month



Proven new policies and SOPs put in place for smoother operations across warehouses



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