zensar

**Fashioning the Future:**
**Supply Chain Modernization on Google Cloud for a Top American Retailer**

Case Study

An RPG Company
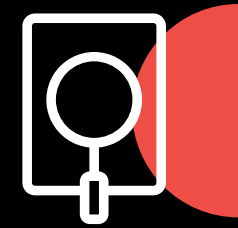
# Overview
**Modernizing retail logistics with Google Cloud**

The client, a popular US-based department store established in 1858, partnered with us to revamp its supply chain warehouse management system (WMS) on Google Cloud. Our experts were instrumental in migrating the legacy WMS to a microservices-based model on the Google Cloud Platform (GCP). We helped facilitate the development of advanced WMS outbound platforms for store distribution centers (SDCs) and centralized fulfillment centers (CFCs), and decommissioning outdated WMS outbound applications.

This comprehensive modernization effort aimed to optimize operational efficiency and agility within the client's supply chain, aligning with its vision for future growth and innovation in retail logistics.

# Challenges
**Challenges in modernizing WMS outbound systems**

The existing WMS outbound systems faced significant hurdles that hampered sustainable business growth. One of the foremost challenges was the client's inability to manage increased workloads and scale effectively during peak periods. Moreover, the reliance on legacy applications was a barrier to integrating new capabilities quickly, stifling adaptability and innovation.

These outdated systems were also incompatible with modern omni features, limiting the organization's ability to meet evolving customer expectations. Additionally, store distribution centers struggle to effectively address direct-to-consumer (D2C) orders, exacerbating operational limitations.
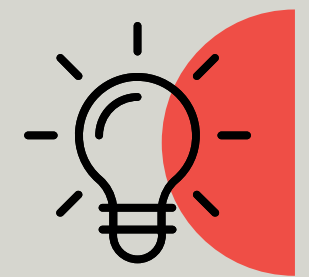
# Solution
## Legacy transformation
## for enhanced efficiency

Based on the due diligence and information gathered, we proposed a complete transformation in three phases to ensure a systematic and practical overhaul of the existing systems. In phase 1, the focus was on eliminating the WMS dependency on legacy software, known as the Greek Gods Application.

Phase 2 involves retiring the legacy WMS in CFCs and integrating all necessary outbound capabilities into the WMS outbound platform, utilizing on-premises microservices refactored from the Greek Gods Application.

Finally, phase 3 involved porting the outbound processes to independent domains or microservices, containerizing them, and deploying them on GCP for enhanced scalability and efficiency.
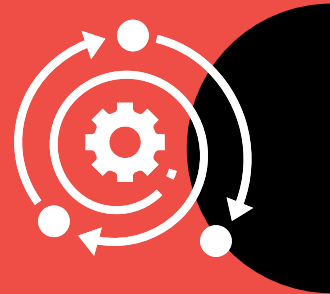
# Impact
**Getting the results right**

The project delivered several benefits to the client, including facilitating direct-to-consumer fulfillment capabilities from SDCs. Additionally, it involved establishing a modern, unified WMS outbound platform on GCP. Heightened operational efficiency was achieved across distribution centers/warehouses (DC/WH), alongside streamlined automation integration with material handling systems. Furthermore, utilizing GCP's auto-scaling features ensured seamless capacity adjustment according to peak and off-peak business hours.

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