zensar

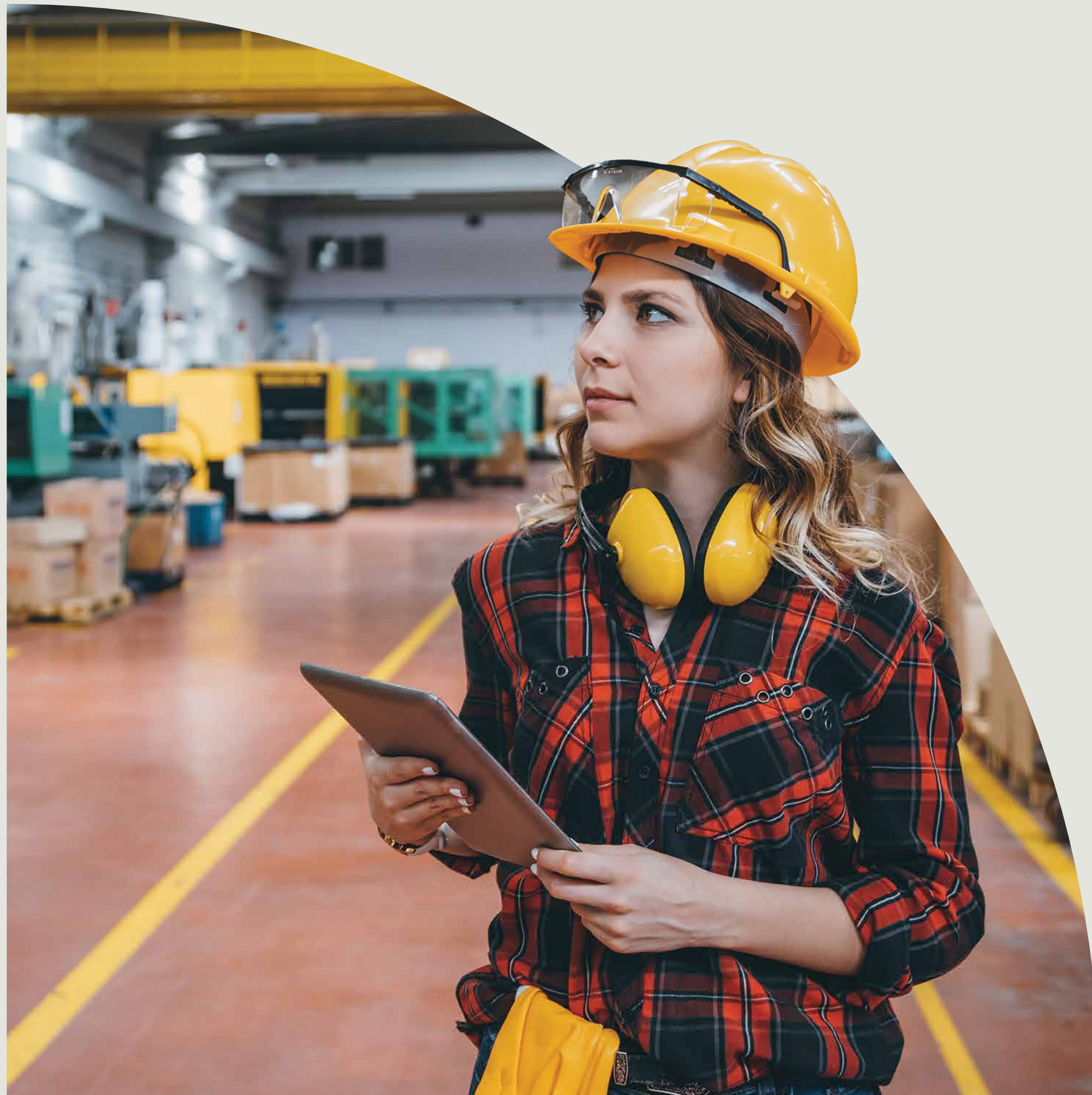# Modernizing Warehouse Management using **Google Cloud Platform**

Case study

Customer background

An iconic brand and an industry leader in retail services. The client is focused on modernizing their current Warehouse Management System on Google Cloud to strengthen their supply chain network.

The customer wanted a clean and intuitive design anchored on a first-class search experience to simplify the warehouse management. The client also wanted to accelerate app innovation by moving to a continuous integration/continuous delivery model that would incorporate continuous feedback and accommodate new features daily instead of on a quarterly release cycle.

Challenges

- The current WMS outbound systems cannot support sustainable business growth through increased capacity and scalability for peak periods
- Current legacy applications do not allow flexibility to enable net-new capabilities quickly and are incompatible for Modern Omni Features
- Store distribution centers not being able to address D2C orders Lack of real-time data visibility
- Inability to apply data through advanced analytics
- Poor insight on how warehousing relates to overall supply chain management
- On-premises solutions that were designed to serve a single location
- Data silos that hinder the ability to consider omnichannel needs

Solution

Zensar, as a trusted partner in this multiyear program that the client has embarked upon, supported the transformation in a phased manner. Zensar conceptualized and crafted a cloud-based data-driven modernization roadmap. The newly built solution will run on a container-based platform. The modernization solution has been designed to improve efficiency, reduced complexity, and offer scalability, agility.

Zensar worked with the customer to build a new warehouse platform using microservices on Google Kubernetes Engine to meet the stated requirements and observed challenges. A managed engine enables rapid application development and iteration by making it easy to deploy updates and manage applications and services.

Using agile development methodologies, Zensar delivered a Modern Warehouse management platform in a short time, leveraging Cloud Build for fast, consistent, and automated container builds. Zensar infused best practices and followed guiding principles stated in the GCP Well Architected Framework.

Phase-wise solution

Phase 1

Removal of dependency of the Greek Gods Application on the client's legacy WMS. Migrate from legacy WMS covering all business features to Microservices based GCP.

Phase 2

Build the end state of the client's WMS outbound platform for both Store Distribution Center ("SDC") and Centralized Fulfilment Center ("CFC"). Retirement of legacy WMS in Centralized Fulfilment Center (CFC)- WMS outbound will have all the CFC outbound capabilities, leveraging on-prem microservices, refactored from Greek Gods for Outbound.
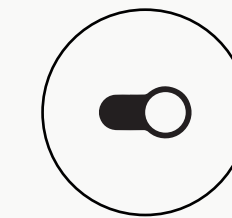
Phase 3

Retire the obsolete legacy WMS outbound applications. Porting of the outbound processes to independent domains/microservices is taken up, and the same would be containerized and deployed on GCP.
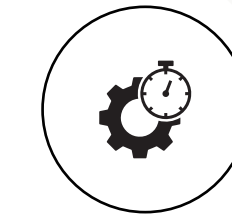
Benefits

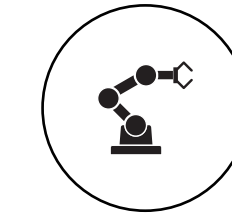With a set of robust and promising solutions, Zensar was successful in:

Enabling the D2C fulfillment capabilities

Modern single WMS outbound platform on Google Cloud

Increase operational efficiency across DC/WH

Simplified automation integration to material handling systems

Leveraging GCP to auto-scale the capacity, as per Peak / Off-peak business hours

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