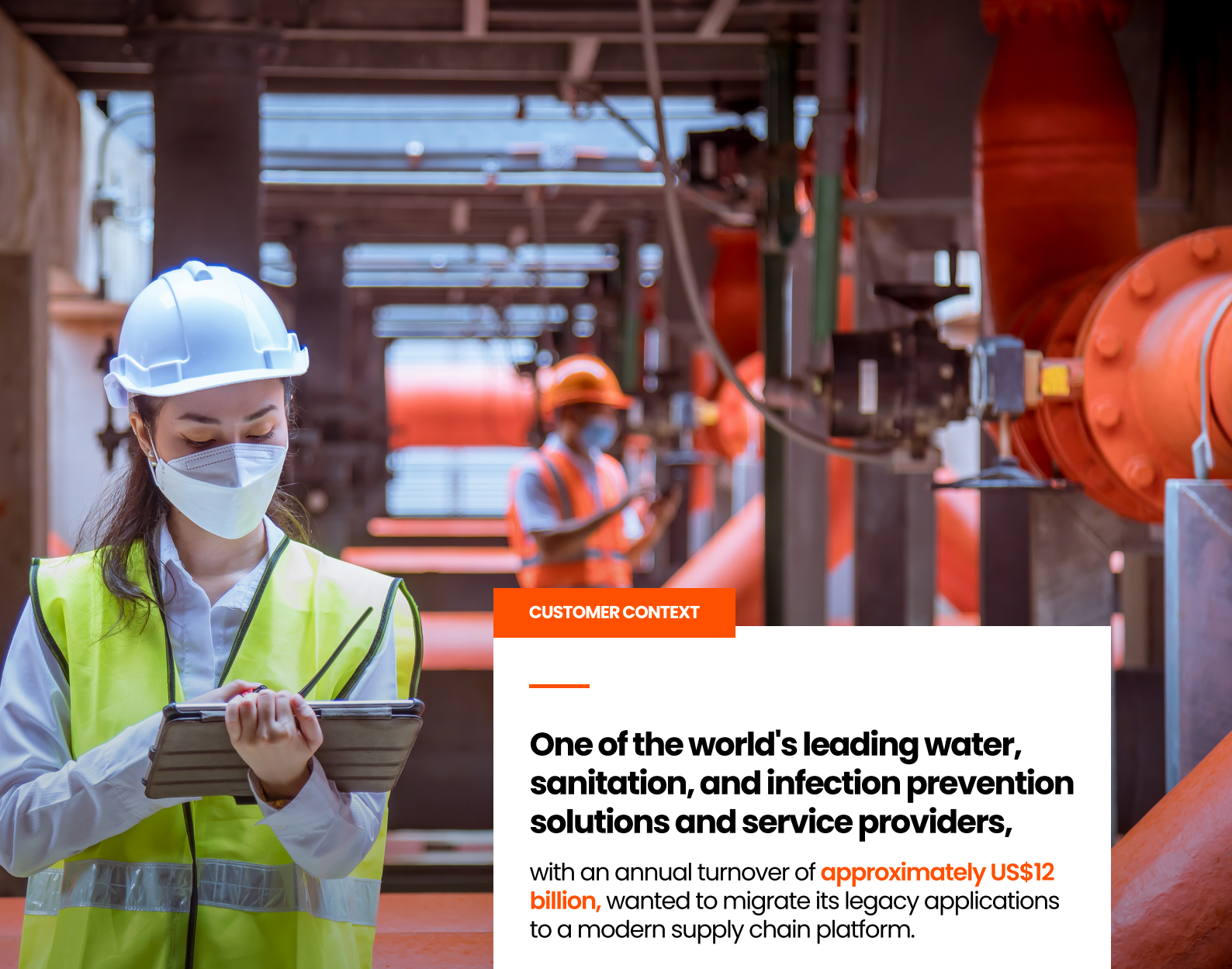




# Migrating Legacy Applications to a Modern Supply Chain Platform

for a Leading \$15 Billion Water, Sanitation, and Infection Prevention  
Solutions Provider





#### CUSTOMER CONTEXT

### One of the world's leading water, sanitation, and infection prevention solutions and service providers,

with an annual turnover of **approximately US\$12 billion**, wanted to migrate its legacy applications to a modern supply chain platform.

The legacy applications consumed a significant portion of the client's cost, about USD 50,000 to USD 70,000 monthly, including the platform support cost. Hence, their goal was to improve the performance and competitiveness of the supply chain practice and transform the organization from a descriptive analytics enterprise to a cognitive enterprise with a scalable data platform that includes self-service capabilities for data exploration. To this end, they had to integrate several supply chain applications into the new analytics platform (Azure and Snowflake based). These applications were used to track fleets, ensure delivery quality, deliver real-time shipment feedback, etc.

The client sought a partner with prior experience in large-scale legacy application migration (*Cloudera to Snowflake, Azure*). With help from Tredence, they wanted to:

- Migrate existing data stores/applications to ensure that ongoing development on Cloudera is not affected
- Extend the basic model to Snowflake and improve the data pipeline for scalability
- Manage cost and quality metrics for migrated applications in Azure and Snowflake
- Catalog the data on Snowflake, Azure data-lake, and Power BI Reports



## We helped the client set up the right foundational capabilities

and used a four-phase approach to migrate from the legacy platform to the new analytics platform.

Discovery

01  
PHASE

Data Foundation

02  
PHASE

Re-Engineer & Retrofit

03  
PHASE

Deploy, Support & Transition

04  
PHASE



01  
PHASE

### Discovery Phase: Creating an Integrated Project Roadmap

Since the migration involved implementing new technologies, our team started with the discovery phase instead of mere lift & shift. This move was critical to the success of the project. It helped us understand the enterprise goals and create an integrated program plan to identify the requirements for data foundation.

The discovery phase lasted for **four weeks, divided into six core activities.**

- Identify stakeholders from business, enterprise data organization, IT and support functions
- Reverse engineer Cloudera application architecture and basic data model analysis
- Establish a DevOps framework for code synchronization and integration
- Complete technical requirements with application owners and key business users
- Configure and setup data catalog covering metadata from Azure, Snowflake, and Power BI on Alation
- Align the stakeholders with the project roadmap

Our team identified the existing technology stacks, data cataloging strategies & methods, roll-out plans & dependencies, change management & transition strategies, team involvement & POT structure during this period.



## Results:



— Successfully identified the architecture of the new platform



— Discovered individual application's requirements



— Completed Proof of Technology implementation for a few critical use cases on the new platform

02  
PHASE

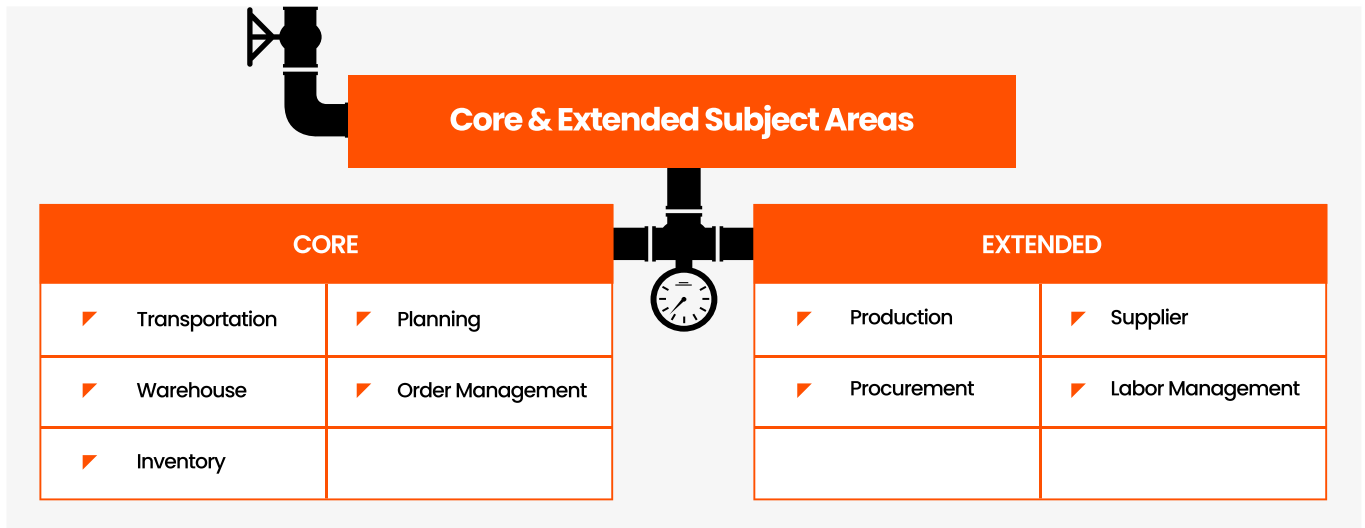
## Data Foundation:

### Developing the Core Foundational Capabilities on Snowflake

Four teams collaborated to create the foundational data model. The client's platform architecture and development team, as well as a third-party vendor, were the other three. Tredence coordinated them and ensured that the data model capabilities met expectations.

We proposed building a foundational data model for seven application use cases for enterprise supply chain users. Our team began by developing the core foundational features on Snowflake in order to accelerate the modernization process and achieve a higher return on investment while controlling costs.

In addition to supporting supply chain applications, there was an additional requirement to enable ad hoc data analysis for business analysts. We migrated historical data from the existing on-premises platform to an enterprise data warehouse based on Snowflake to meet this requirement. Snowflake's data model incorporated best practices from the supply chain domain, including integrating all key entities and data elements. The core subject areas and sample entities are listed in the figure below:



## Results:



— Successfully executed multiple POTs (Proof of Technology) to showcase the data collection process in near real-time on the Azure platform



— Designed and conceptualized the logical & physical foundational data model



— Identified and implemented the approach for historical data migration



## Re-Engineer & Retrofit: Implementing the Consumption Layer to Support Downstream Analytics & Reporting

In the third phase, data used for conversion was imported from the source (SAP) and loaded into the foundational model. It included building data pipelines for migration, conversion, processing, cleaning, testing, incremental data ingestion, and data provision for various downstream applications.

- Creation of a semantic layer to support application data requirements
- Data cataloging across the data lake and Snowflake
- Integration of the base model with the new analytics platform
- Integration of tested applications
- Business user validation on the analytics platform
- Creation of cutover and deployment plan
- Shaping the transition plan

### Results:



— Successfully implemented the foundational data model



— Retrofitted and implemented data ingestion/data processing modules to support the seven applications



— Implemented the consumption layer to support downstream analytics and reporting



— Finalized and implemented a data cataloging solution for the new platform using Alation

## Deploy, Support & Transition: Providing a Seamless Experience for Business & Technical Teams

To ensure a smooth deployment and encourage enterprise-wide adoption of the new data platform, we deployed the individual applications according to the release schedule, including the transition plans and the documentation.

- Testing of the execution results
- Preparation of cutover checklist for every roll-out
- Creation of transition documents for each application
- Design of the production support runbook to onboard analysts and support teams
- Formulating the data catalog reports and governance structure

### Results:



— Successfully deployed all seven applications to the new analytics platform



— Provided documentation, knowledge transfer and hyper care support to the client's support team





#### OUR SOLUTION APPROACH

## The Client Saved **~\$50K/month** by Migrating Legacy Applications to New Supply Chain Platform with Tredence's Help

Tredence adopted a four-phase migration approach, enabling the client to migrate their legacy applications successfully to the new supply chain platform. It helped them integrate the entire supply chain data into the data lake instead of managing multiple data lakes.

#### OVERALL IMPACT



**\$50,000**

Net cost savings per month.



**180 days**

Technology upgrade in record time.



**User-based access**

Enterprise-wide access to the application.



**Data democratization**

Persona-agnostic reporting and analysis.





# TREDENCE

— Beyond Possible —

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