



# REWARD MANAGEMENT BI/DW MIGRATION ORACLE TO POSTGRES AND REDSHIFT

## ORGANIZATION

Our client provides enterprise management software for the retail and petroleum wholesale markets, and their solutions connect to intelligent businesses. They have over 1500 customers in more than 200,000 locations worldwide and count on their leading ERP, logistics, fuel pricing, and marketing cloud solutions to provide insights that increase volume, margin, and customer loyalty.

## CHALLENGE

Our client embarked on a digital transformation multi-phase initiative. As part of Phase I: cloud initiative, the legacy applications were migrated to AWS and the DW/BI Oracle database to Postgres and RedShift. The next phase was to reimplement the legacy application using modern technologies. However, our client lacked in-house AWS, PostgreSQL, and RedShift expertise and needed a trusted partner to assist in the implementation and provide technical guidance and recommendations to their technical resources. With the help of XTIVIA, they migrated the on-premise legacy application to AWS and updated their databases to PostgreSQL and RedShift.

## TECHNICAL SOLUTION

XTIVIA created a cloud Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) solution. The team made decisions to update the hibernate data source in the existing legacy application. However, there are many native SQL queries in Oracle SQL format and the JSON data types are not supported with existing Hibernate dialects.

The solution recommended by XTIVIA was to rewrite native SQL queries in PostgreSQL format, implement custom Hibernate dialect to PostgreSQL and implement custom Hibernate user types to support JSON data types.

### XTIVIA Engineers were able to implement the following solution:

- Create & configure the AWS IaaS environment for the legacy applications
- Create & configure the RedShift PaaS environment for the database
- Migrate the On-premise Oracle database to PostgreSQL and RedShift database
- Rewrite the stored procedures to PostgreSQL
- Update the legacy application to add the PostgreSQL data source
- Rewrite the Hibernate native SQL queries to PostgreSQL queries
- Implement the custom hibernate dialect to support PostgreSQL
- Implement custom hibernate user type to support JSON data type
- Update the crystal reports datasource to RedShift
- Create test scripts and generate coverage reports to test the migration

## BY THE NUMBERS:

### PDI Software

- 1500+ Customers
- 50+ Countries
- 100,000+ Retail Stores
- 50+ Billion Gallons Transacted Per Year

### KEYWORDS

AWS, Hibernate, PostgreSQL, RedShift

### SOFTWARE

AWS Cloud, Hibernate, PostgreSQL, RedShift



## BUSINESS RESULT

- Migrate Legacy application from on-premise to cloud-based solution in AWS
- Quick cloud solution for the legacy application
- Improved database performance, by migrating to RedShit
- Cost-effectiveness

## XTIVIA OVERVIEW

XTIVIA is a proven technology integration and innovation company known for delivering leading-edge technology solutions to our clients' specific requirements, regardless of project complexity. We bring next-level business operations to reality through Application Development, Business Intelligence, Data Warehousing, Database Support & Management, Enterprise Information Management, Digital Experience Solutions and Enterprise Resource Planning. Our success stems from a demonstrated ability to deliver deep expertise via professional services, empowering clients to leverage their chosen technology successfully, competitively and profitably. XTIVIA has offices in Colorado, New York, New Jersey, Missouri, Texas, Virginia, and India. [www.xtivia.com](http://www.xtivia.com)