



## CASE STUDY

# LEGACY APPLICATION MIGRATION TO CONTAINERIZED MICROSERVICES FOR A GLOBAL BANK

Increased scalability, availability and maintainability of a 3-tier application with architecture transformation

## Client Background

Our client is a leading global bank for consumer and institutional businesses worldwide with significant operations in the US. The client's payment processing landscape included multiple applications built on legacy technologies with monolithic tightly coupled architecture. This led to scalability, maintainability, and high availability issues for the client. The key objectives of the client included:

- Re-engineer their application, migrating from a monolithic to microservices-based architecture
- Support scalability and high availability with application deployment to a containerized infrastructure platform
- Modernize infrastructure and organization-wide technology of applications in the payments processing system

## Xoriant Solution | Key Contributions

Xoriant engineering team collaborated with the client to bring an accelerated approach in application reengineering for their payment processing infrastructure. With three decades of experience in design, development, and implementation of enterprise solutions for multiple Fortune 100 clients worldwide, Xoriant proposed a phase-wise approach, best suited to meet the demands of complex reengineering projects.

- Defined microservices & containerization technology stack for application migration

## KEY BENEFITS

- Achieved 100% horizontal scalability and high availability for the application
- Increased maintainability of the application and upgrades with zero downtime
- Reduced hardware resource usage by making use of containerized platform
- Ensured a highly decoupled system with microservices architecture as compared to the monolithic application

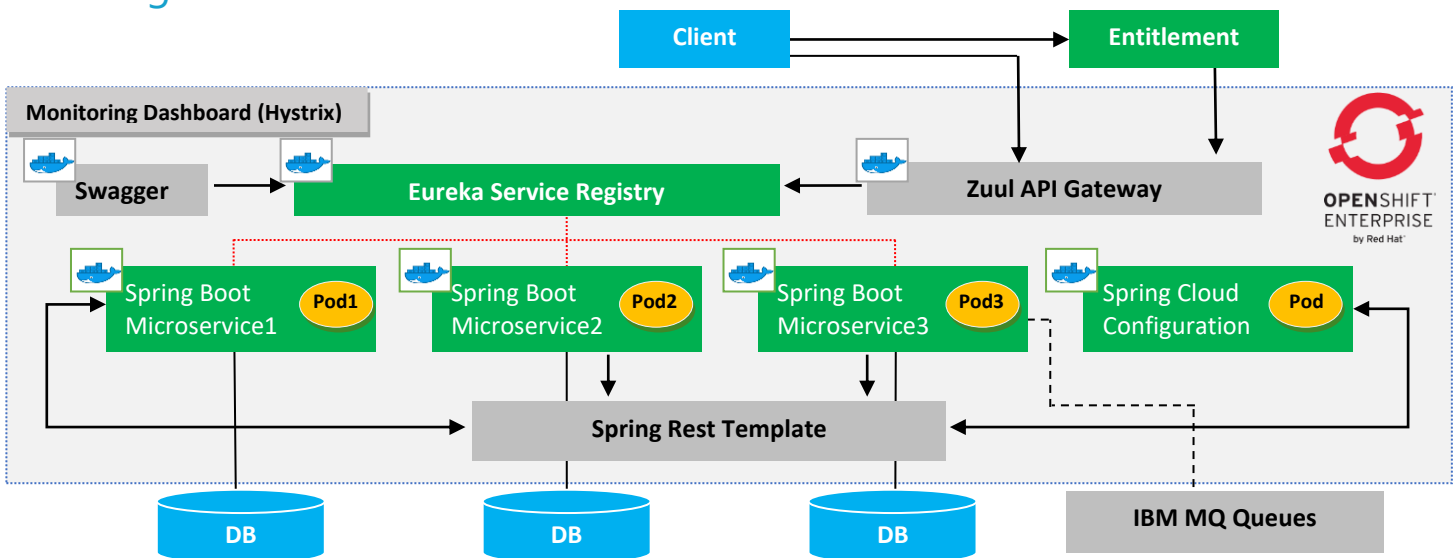
Legacy application migration to containerized microservices for a global bank

- Separated monolith into modules and sub-modules to create micro-services using metrics such as separation of concerns, identifying code and data boundaries, frequency of change, independent life cycles, different scaling requirements
- Developed separate codebase and build scripts for each micro-service projects using Spring Boot Framework
- Built containerized microservices with externalized configuration to deploy into OpenShift Container Platform by converting deployable into a Docker Image

## Client Testimonial

“Xoriant’s rigorous planning and best practices for architecture transformation from monolithic to microservices resulted in a smooth transition increasing horizontal scalability and high availability of our payments processing application”

## High Level Architecture



## Technology Stack

RedHat OpenShift Container Platform, Docker, Spring Boot, Spring Config, Eureka Server, Zuul API Gateway, Swagger, Oraas (Oracle as a service), NDM File Server, IBM MQ, Autosys



Xoriant is a Silicon Valley headquartered product engineering, software development and technology services company, serving technology startups as well as mid-size to large corporations. We offer a flexible blend of onsite, offsite and offshore services from our eight global delivery centers with over 2500 software professionals. Xoriant has deep client relationships spanning over 25 years with various clients ranging from startups to Fortune 100 companies.