



Case Study - Travel

Amaze® Provides Rapid Assessment and Accelerated Cloud Migration to AWS Postgres

Customer Profile

- One of the leading providers of data analytics solutions to the airline industry with the most comprehensive repository of global airline tickets
- Global presence and operations across 230+ countries and territories

 Revenue: \$570+ Million  Employees: 2.8 K+

Problem Statement

The client faced challenges in data management, scalability, and flexibility, which impacted the overall business functionality, time-to-market, and user experience. They sought a technology partner to accelerate their end-to-end cloud journey from portfolio assessment to cloud migration. The expectation was to modernize the 2-tier web applications from WebLogic to Tomcat and eventually to AWS Cloud in a phased manner along with the PostgreSQL database.

Technical Challenges

- All the business logic was tightly coupled irrespective of different modules.
- Assessment of 14+ legacy applications based on varied technologies such as Angular, Flex, Node.js, ExtJS, PHP, Hibernate, JPA, Spring Boot, Struts, JavaScript, JSP, HTML, Spring, MDB, ASP, EJB, JMS, ANT, MQ and some batch processes developed using Python, Quartz, and shell scripts.
- Post assessment, migration of 14+ legacy applications from the customer's data center to Tomcat and finally to AWS Cloud.
- As the applications were business-critical and handled key financial processes, moving the web services to production without impacting business-as-usual was a major task.

Business Challenges

- The applications were not scalable based on business functionality and were not reliable in handling exponential data.
- Given the volume of apps and the desired time to market, the client was looking for a partner who could help with an automated solution for the cloud migration.

The Solution

We leveraged **amaze® for applications** for automation-led assessment, strategy, and cloud migration from the data center to AWS Postgres, without impacting the client's day-to-day business. We followed the below roadmap for a highly scalable solution that modernized the legacy monolithic applications to a microservices-based architecture:

- Portfolio assessment to identify the most suitable cloud strategy to modernize and migrate 14+ 2-tier legacy applications as N-tier cloud native apps.
- Application modernization was planned and executed in two phases:
 - **Phase 1:** No changes in code and the existing setup was retained. The environment was changed from WebLogic to Tomcat.
 - **Phase 2:** SOAP endpoints were converted into REST endpoints and the environment was changed from Tomcat to AWS cloud.
- The UI and data access layers were decoupled. Business services were automatically created from the UI and integrated with the data access layer.
- SOAP-based web services were converted to REST web services, replatformed to Spring Boot, and deployed in the AWS ECS Fargate container.
- The API gateway, Discovery server, and Redis Cache were added manually to the microservices API.
- UI modernization from Flex, JSP to React.
- Microservices were bundled with all their dependencies, containerized on Spring Boot with Tomcat, and deployed in the AWS cloud native application.
- All the DDLs, like stored procedures, packages, functions, triggers, views, and DMLs, were migrated to PostgreSQL automatically.
- Used CloudFormation templates and an automated CI/CD pipeline for deployment.
- An AWS-agnostic cloud solution.



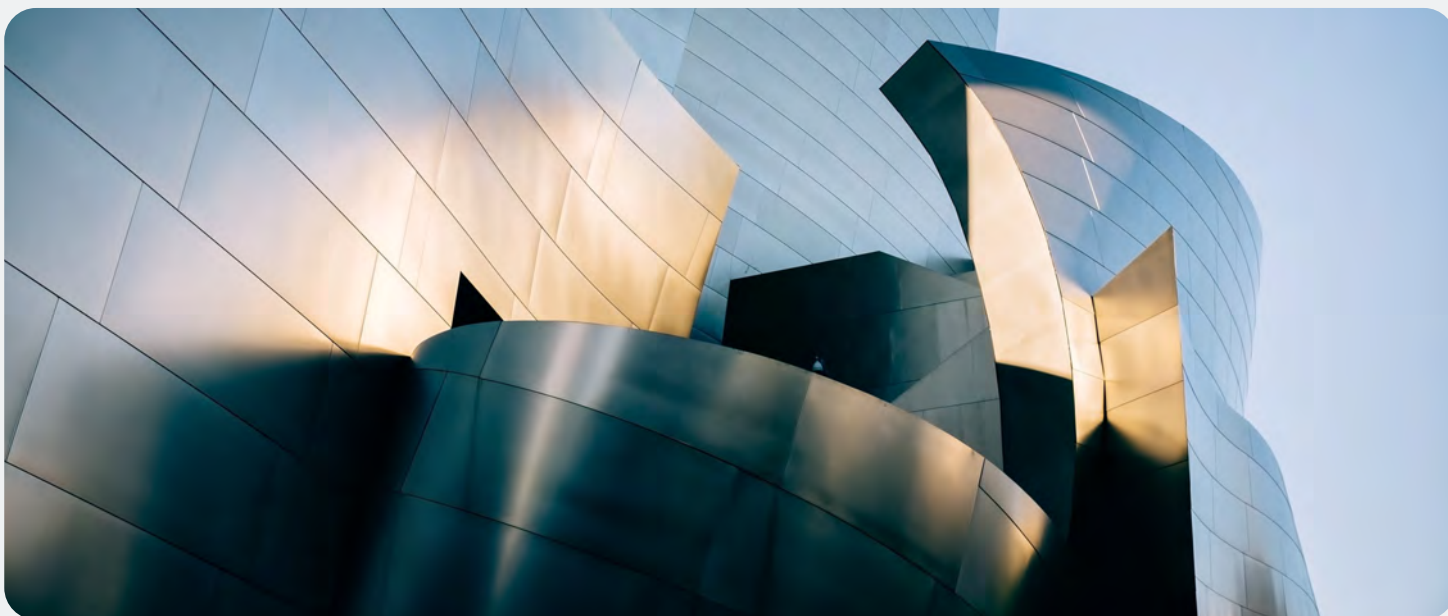


Tangible Benefits

- Completed the source code assessment using amaze® for 14+ applications in 48 hours
- 80% faster assessment for cloud readiness
- 80% reduction in database license cost
- 70% reduction in manual effort due to automated deployment processes
- 70% faster time-to-market as the business features are replatformed and migrated to production in 6 to 8 weeks

Intangible Benefits

- Detailed insight into the application code, roadblocks, and effort
- Function-driven micro/macro service segregation
- Modernized UI by separating it from the monolithic architecture
- CI/CD integration of the former legacy app
- Optimization of the customer's overall IT expenses
- Increased cloud footprint



About Hexaware

We are a global technology and business process services company empowering businesses worldwide to realize digital transformation at scale and speed. Our platform-enabled strategy – featuring Amaze® for full cloud enablement, Mobiquity™ for digital product engineering, and Tensai™ for extreme automation – drives human-machine collaboration to create immersive customer experiences and solve complex business problems. We believe technology is a magical thing, and our purpose is to create smiles through great people and technology.

With corporate headquarters in Mumbai and regional headquarters in New Jersey for North America, London for Europe, and Sydney for APAC, our 28,000+ Hexawarians service customers in over one hundred languages from every major time and regulatory zone. We serve customers in banking, financial services, capital markets, healthcare, insurance, manufacturing, retail, education, telecom, hi-tech & professional services, travel, transportation, and logistics. We deliver highly evolved services in rapid application prototyping, development, and deployment; build, migrate, and run cloud solutions; automation-based application support; enterprise solutions for digitizing the back-office; digital product engineering; business intelligence & analytics; digital assurance; infrastructure management services; and business process services.

Learn more about Hexaware at <https://www.hexaware.com>.

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