MACT○RES

CASE STUDY

Mactores Automation Accelerators Drive Successful Migration from Oracle to Amazon RDS PostgreSQL for Silicon Valley Manufacturer

Synaptics partnered with Mactores to overcome ROI challenges from their on-premises Atlassian stack and Oracle licensing costs. Mactores employed Amazon Database Migration Service (DMS) and automation accelerators for a seamless AWS migration. The result was a 4x performance boost, a 70% reduction in operational efforts, and 60% cost optimization, highlighting Mactores' expertise and the migration's success.

Case Study
Summary

- Synaptics sought to improve ROI by reducing TCO and increasing performance and scalability through a seamless migration to AWS.

- Mactores recommended Amazon Database Migration Service (DMS) as the optimal approach, utilizing automation accelerators to handle schema conversion and data verification.

- A comprehensive migration strategy was developed and tested in a non-production environment before successful deployment, ensuring ongoing performance improvements and cost savings.

- Synaptics achieved a 4x performance boost, 70% reduction in operational efforts, and 60% optimization in cost of operations by migrating to Amazon Aurora PostgreSQL serverless.

About
The Customer

synaptics®

Synaptics is a California-based human interface hardware and software developer, including touchpads for laptops, touch, display drivers, and smartphone fingerprint biometrics technology. Synaptics sought to reduce the total cost of ownership (TCO) of its Atlassian JIRA & Confluence stack, which relied on Oracle 11g as the backend database. By migrating to a managed database on AWS, Synaptics aimed to achieve a 30%-40% reduction in TCO and a 2x increase in performance and scalability.

Customer
Situation

The Synaptics engineering team utilized the Atlassian JIRA & Confluence stack on their on-premises data center. It operated on Tomcat running on RedHat Enterprise Linux and employed Oracle 11g as the backend database. However, this infrastructure failed to meet Synaptics' expected return on investment (ROI), primarily due to their reliance on costly Oracle licenses and the need for ongoing hardware maintenance.

In response to these challenges, Synaptics engaged Mactores to assess and devise an optimal IT transformation strategy for their workloads. The business teams at Synaptics set forth ambitious goals: a 30%-40% reduction in the total cost of ownership (TCO) and a twofold increase in performance and scalability. Synaptics' IT teams were entrusted with the responsibility of executing a seamless migration with zero downtime to a managed database on AWS.

"We optimized and confidently ran our Atlassian Applications from the Oracle database to Amazon Aurora PostgreSQL. This helped us reduce TCO by 60% and improve performance by 4x"

- Michael Brooker, Senior VP and CIO @ Synaptics

Our
Approach

Our database migration experts evaluated Synaptics' situation and presented them with two possible migration paths. Using Atlassian XML Import Export, the first approach was simple but could have been better for Synaptics' large-scale migration. The 24-hour downtime and lack of support for larger migrations made it an unsuitable choice.

The second approach, using Amazon Database Migration Service (DMS), seemed to be the perfect fit. It could handle change data capture, enable zero downtime migration, and utilize Mactores' automation accelerators to address schema conversion and data verification challenges. Synaptics, after careful consideration, decided to embark on this journey with a second approach.

To ensure a successful migration, Mactores developed a comprehensive strategy. We began by converting the schema from Oracle to Amazon RDS Postgres using the Amazon Schema Conversion Tool (SCT) to test the conversion. We also addressed case sensitivity issues in schema names by creating additional pre-migration scripts.

With the preparations complete, Mactores used Amazon DMS to migrate the data while ensuring minimal downtime and consistency. We then verified the successful migration of all records with a Mactores verification tool, ensuring no data was lost.
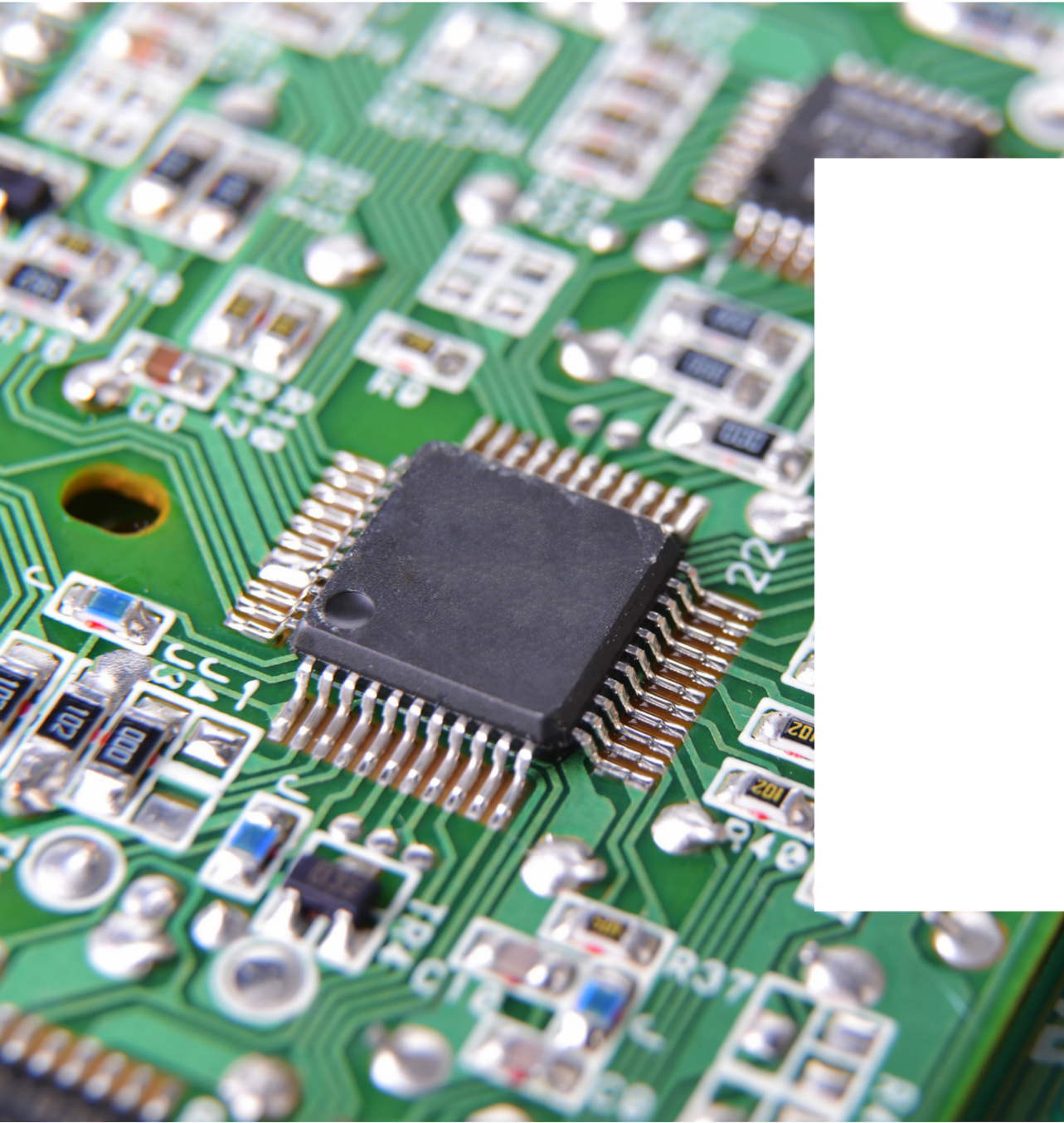
Before deploying to production, we tested the process in a non-production environment. This allowed us to identify and fix potential issues before deploying it to production. With the migration complete, we continued to monitor and optimize the new infrastructure, ensuring ongoing performance improvements and cost savings for Synaptics.

Business
Outcomes

Technical
Outcomes

The migration achieved all objectives, including performance and TCO goals, zero downtime migration with **100% data consistency**, and ROI within one year. This success was largely due to the expertise of Mactores and the use of their automation accelerators in managing the complex migration process.

By moving from an on-premises Oracle database to Amazon Aurora PostgreSQL serverless, Synaptics experienced a **4x performance boost** and a **70% reduction in operational efforts**. This led to a **60% optimization in the cost of operations**, highlighting the importance of Mactores' automation accelerators and comprehensive migration strategy in achieving the desired migration results.
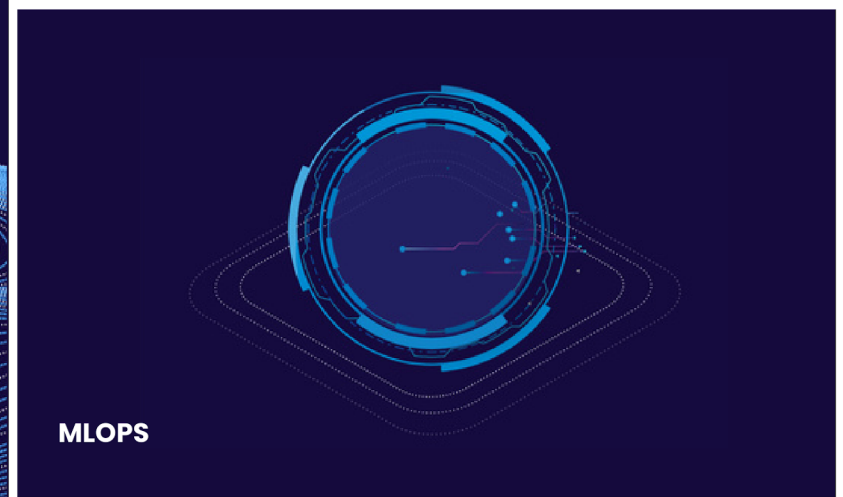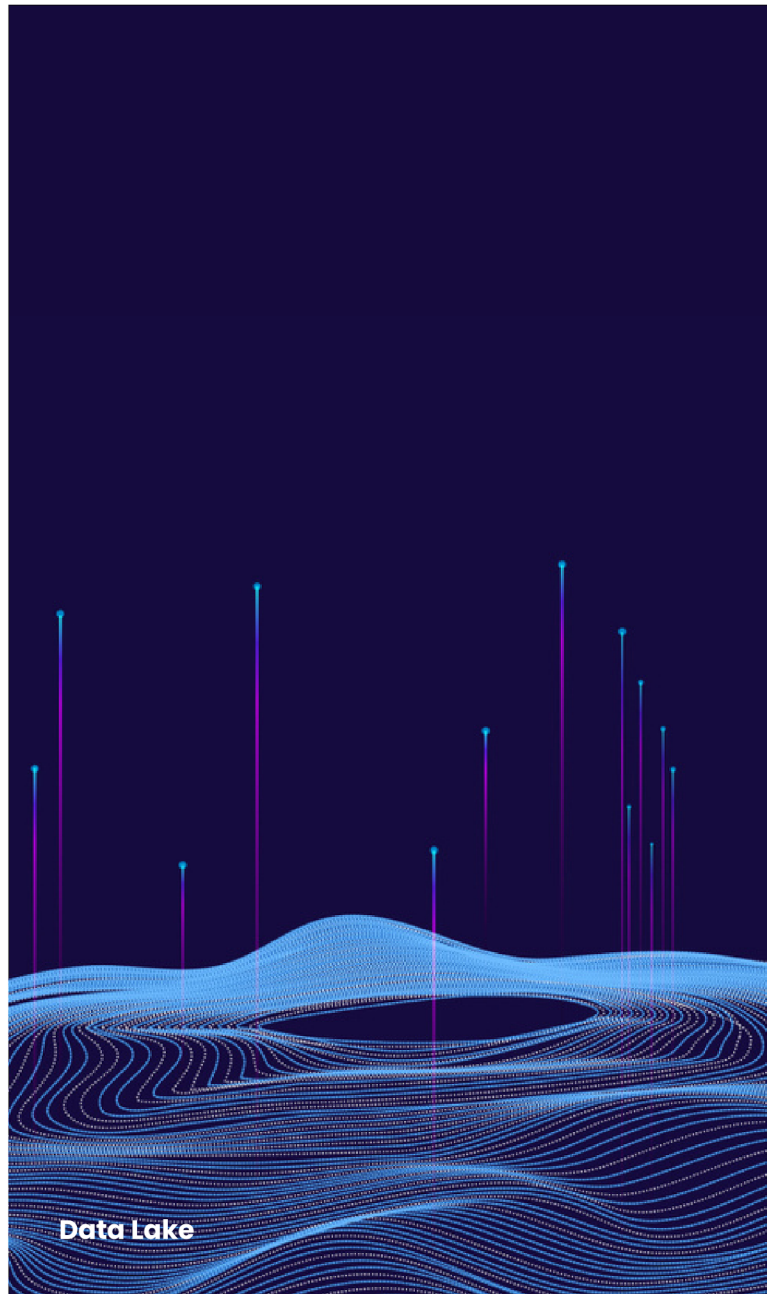
Getting
Started

Mactores facilitated an in-depth workshop, engaging key stakeholders to analyze Synaptics' current infrastructure thoroughly. Following this comprehensive review, the Mactores data team conducted an ideation session, which helped the Synaptics team envision a clear path forward.

This workshop culminated in a four-week Proof of Concept, during which the team experienced tangible benefits by observing the proposed solution in action within their environment. This hands-on demonstration garnered buy-in from all essential stakeholders. Mactores and Synaptics embarked on their collaborative migration journey with a well-defined strategy.

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Our
Solutions

Data Lake

Data Lake

Databases

Data Ops

MLOPS

Our **Process**

Digital transformation via assessments, migration or modernization

We work alongside your tech team to assess and strategize what you need and how to implement the right data solutions on time, on budget and with c-suite buy in.

Assess

- Discovery Automation
- Future State Assessment
- GAP Analysis
- End State
- Road Map
- TCO

Migrate

- Strategy
- Execution
- Migrate
- Migration Acceleration

Modernize

- StrategyFuture State
- Design
- Build
- Automate

AWS Validated
Competencies

aws
PARTNER
Advanced Tier
Services

aws
PARTNER
ML Services
Competency

aws
PARTNER
Data & Analytics
Services
Competency

aws
PARTNER
DevOps Services
Competency

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PARTNER
Migration Services
Competency

aws
100
CERTIFIED

aws
PARTNER
Immersion Day

AWS Validated
Service Deliveries

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PARTNER
Amazon Redshift
Delivery

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Delivery

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