indium
Make Technology Work

MIGRATION & OPTIMIZATION OF A REAL-TIME MICROFINANCING APPLICATION

PROJECT OVERVIEW

Application enhancement to overcome performance and user experience issues affecting the customer satisfaction and processing time for loan approvals. The enhanced application leveraged Elasticsearch for faster indexing resulting in efficient retrieval of customer data and loan processing within 30 minutes. The primary step in this process was the data migration from PostgreSQL on Digital Ocean to PostgreSQL on AWS.

BUSINESS

Product Development

CLIENT DOMAIN

FinTech

KEY HIGHLIGHTS

- Application performance improved by 89%

- 93% reduction in time taken to generate financial reports and process loans

- Loan processing achieved within 30 mins

- Minimal bank transaction issues for the automated loan repayment processes

STATUS QUO

Centred in Singapore, the client runs a successful organisation offering digital microfinance as their core business. Additionally, the client offers corporate and consumer loans, strategic acquisitions of firms and partnerships with companies. As a technology focused organization, the client leverages innovation to effectively and efficiently serve its customer.

The existing system consumed a long time to process loan approvals and did not provide an engaging user interface to the end-customers. To alleviate these issues, it became increasingly necessary to upgrade the digital platform to one with improved performance and a superior user experience.

BUSINESS CHALLENGES

Some of the business challenges being faced were:

- The existing application was heavily Dockerized with multiple open source system, increasing the complexity of the system and requiring a lot of infrastructure to manage it.
- The code of the existing system was not supported on AWS.
- Performance constraints created a system lag, while processing loans.

SOLUTION

To overcome the issues in the existing system, Indium devised a versatile solution to boost the performance and elevate the user experience. The characters of the solution were:

- Migration of the data from Digital ocean to AWS.
- Code enhancement to use a maximum of the existing code, with minor modifications, in the new platform.
- Efficient Dockerization using AWS components, which reduced number of servers minimizing the TCO.
- Tuning of the application for high availability, with Queue and Task manager.
- Integration with third-party APIs for a faster loan approval.

BUSINESS IMPACT

- Resulting high-durability system elevated performance by nearly 89%.
- 93% reduction in time taken to generate financial reports and process loans. Loan processing within 30 mins was achieved.
- 80%+ drop in transaction issues while integrating with banks for the automated loan repayment processes.
- Improved the existing system with new features, like automated email triggers to customers etc.

TECH STACK

python™   elasticsearch

PostgreSQL   aws

ABOUT INDIUM

Indium is a Digital Engineering Services leader and Full Spectrum Integrator that helps customers embrace and navigate the Cloud-native world with Certainty. With deep expertise across Applications, Data & Analytics, AI, DevOps, Security and Digital Assurance we "Make technology work" and accelerate business value, while adding scale and velocity to customer's digital journey on AWS.

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