ARAB BANK: UTILIZING DATA-DRIVEN ANALYTICS FOR DECISION-MAKING AND A 360 VIEW OF CUSTOMERS

IMPACT

- All data is integrated and populates a DaaS Platform with 50TB of data – where all the data sources can be accessed simultaneously
- Improved customer engagement. To date, the platform has sent 10 million near real-time customer alerts and notifications
- A reduction in dead cash holdings at ATM networks means excess cash is redirected elsewhere for additional revenue generation

Founded in 1930, Arab Bank headquartered in Amman, Jordan, has one of the largest global Arab banking networks with over 600 branches across five continents. Publicly listed on the Amman Stock Exchange, its assets of $63.7 bn represent a substantial part of the exchange's total value.

To maintain its position and capitalize on the opportunities in the Middle East and North Africa, Arab Bank understood the importance of Big Data, growing its cloud footprint and engaging with emerging fintech companies. Particularly, with the region's youth population rapidly adapting to the digital world.

However, the bank's legacy systems and existing data warehouse meant a data-driven digital transformation – including the release of new artificial intelligence (AI) and machine learning (ML) features – was going to be a longer-term work in progress.

The journey with Cloudera

To get a handle on its big data, Arab Bank built a modern Data as a Service (DaaS) platform with Cloudera's enterprise platform.

Cloudera offers integrated storing, processing, and analysis for all data. This is key to supporting new methods of data utilization, enabling Arab Bank to stay competitive and use its IT infrastructure more efficiently. For example, the Bank can now integrate and populate its DaaS platform with 50TB of data while providing simultaneous access. Queries are completed faster and employees have access to analysis for rapid decision-making.

The Cloudera platform has become the Bank's central data hub and improved customer engagement and performance. The Bank is utilizing data points it was previously unable to and rolling out data-driven business use cases.

Customer spend analysis

In a short time, Arab Bank has deployed spend analysis and engagement features that are relevant to its customers. This means card and spend analysis can now be consolidated into meaningful insight.

Arab Bank's Data Engineering team built the customer spend analysis service by leveraging data from legacy source systems and migrating it to Cloudera. Over 500,000 global merchants are mapped to spend categories giving customers a holistic view.

Customers can now view card spending in 15 broad categories and compare it with previous months to better manage finances.

Digital Salesforce (Engagement Platform)

Processing technologies using Kafka and Cloudera Streaming Analytics powered by Spark continuously ingest data from source systems so Arab Bank's digital salesforce can translate complex events into meaningful alerts. This opens new possibilities for customers and higher engagement.

30+

New use cases

> "Arab Bank's digitization vision is to consolidate its entire data inside one platform to create a streaming data warehouse where real-time information is available for processing without delay. Working with Cloudera is helping us realize this goal."

— Eric Modave, Chief Operating Officer, Arab Bank

About Cloudera

At Cloudera, we believe that data can make what is impossible today, possible tomorrow. We empower people to transform complex data into clear and actionable insights. Cloudera delivers an enterprise data cloud for any data, anywhere, from the Edge to AI. Powered by the relentless innovation of the open source community, Cloudera advances digital transformation for the world's largest enterprises.

Learn more at cloudera.com

To date, Arab Bank has produced 30+ new use cases and sent 10 million event-driven customer notifications in near real-time. The result is improvements in marketing campaign cross-sells and upsells, customer mobile app usage over conventional channels, and a reduction in failed card transactions.

ATM cash optimization

Arab Bank also undertook a project to optimize the cash storage at its many ATMs. Failing to anticipate the cash needs of customers means ATMs sitting on 'dead cash' or running out of money. Excess cash deprives the Bank of using the money elsewhere. Lack of cash leads to poor customer experience and missed revenue generation every time the cardholder of another bank withdraws money.

In response, Arab Bank used CDSW to create an ML model to forecast future withdrawals. Using Cloudera's Spark engine, an automated algorithm tells the replenishment team the amount of money needed, minimizing manual work.

As a result, Arab Bank expects substantial savings from improved cash flow income and by avoiding loss of business opportunities.

Data Science Academy

Additionally, Arab Bank has built a Data Science Academy taking advantage of its centralized data hub. Its Data Science team runs comprehensive analyses – such as next best offer for cross-selling and up-selling opportunities and customer churn prediction – which make large demands on computing power and requires fast access to big data. It trains business users on advanced analytics with predictive and productionized models for sales optimization and risk mitigation.

CDSW adds value to the Academy by providing a stable platform for teams to run experiments while working on innovative use cases.

Eric Modave, Chief Operating Officer, Arab Bank: "Our platform is growing fast with use cases being produced at pace, and Cloudera Data Science Workbench is a foundational tool helping support our vision of being an AI and ML-driven organization."

Moving towards a real-time data warehouse

Currently, Arab Bank's data engineering team leverages its modern data platform, from a wide range of legacy data sources, to simplify infrastructure and create a centralized streaming data platform. The vision is to consolidate data inside Cloudera to create a streaming data warehouse where real-time information is available for immediate processing.

The Bank is continuing to work on advancing its customers' personalized mobile experience – with product recommendations based on the users' profile. Supporting this is an ever-growing customer segmentation via clusters built on factors like demographic, attributes and age, all benchmarked against their peers' expenses.

Powering the clustering and recommendations is Cloudera's Data Science Workbench (CDSW), where data is accessed via Cloudera's Impala which makes processing and final output load to the operational data store a smooth experience.

Eric adds: "Arab Bank's digitalization vision is to consolidate its entire data inside one platform to create a streaming data warehouse where real-time information is available for processing without delay. Working with Cloudera is helping us realize this goal."

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