

# BANK NEGARA INDONESIA: IMPROVING CUSTOMER EXPERIENCES, CUTTING COSTS, OPTIMIZING DATA ANALYTICS

**IMPACT**

- Saved up to IDR3 billion (USD209,457) per year on data storage
- Avoided potential regulatory fines by IDR10 billion (USD698,193)
- Identified over 2,500 business banking customers to be offered retail banking products
- Over 50 percent acceptance of new products from cross-selling efforts
- Successfully launched the credit card transaction history feature in the BNI mobile application to help customers track their spending and identify fraud rapidly
- Freed up 20 percent of storage in data warehouse

Bank Negara Indonesia: Improving customer experiences, cutting costs, optimizing data analytics

**Challenge**

Indonesia’s banking landscape is immensely competitive, with over 1,700 banks and a wide selection of digital banking options for customers. About 78 percent of Indonesian customers currently use digital banking actively, whether it is via online or mobile channels.

With the rise of private banking and digital engagement, it is imperative for state-owned banks to enhance their offerings to remain competitive. To meet the fast-changing needs of millennials, BNI had to hyper-personalize its services by offering relevant retail banking solutions to its current business banking customers. However, BNI’s customer base was previously separated on two platforms: business banking and retail banking data silos, making it difficult to identify potential leads for cross-selling products between segments.

BNI also aimed to enhance its credit card offerings for digital savvy customers. Previously, the bank’s credit card customers had to contact customer service or wait for month end billing statements to check their transaction history. This gave them less visibility to control their expenses and made them more vulnerable to fraud.

BNI’s data warehouse took 10 seconds to retrieve a card’s transaction history for a single billing cycle. However, there are around two million credit card accounts, a volume which its warehouse struggled to handle efficiently and would have taken up to seven and a half months to process.

To transform these services, BNI had to address unprocessed historical raw data from various systems which were taking up storage space in its data warehouse. The space needed to be optimized for data marts with an integrated layer for report performance. Without streamlining storage, BNI needed to purchase more storage than its previous system required, which could potentially cost an extra IDR3 billion (approximately USD209,457) per year. The excessive volume of historical raw data also slows the bank’s reporting, which makes BNI vulnerable to fines of up to IDR10 billion (approximately USD698,193) from regulatory authorities.


 IDR  
3B

Saved per year on data storage

#### 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](https://cloudera.com)

#### Solution

With the Cloudera enterprise data platform, BNI built a solution that strengthens its capabilities to optimize data archive storage, support new analytical models and ultimately give the bank the flexibility to enhance customer offerings.

BNI's big data platform optimizes the extraction and processing of data to speed up analytics with solutions such as Apache Hbase and Apache Spark. With the Cloudera platform, BNI was able to free up precious storage space, make data retrieval more efficient, migrate historical raw data to more cost-effective storage locations, and enable batch, real-time and advanced analytics.

To enhance its data architecture, drive faster analytics and optimize cost efficiencies, the bank is also looking to upgrade to the Cloudera Data Platform Private Cloud Base (CDP Private Cloud Base). Through this upgrade, BNI opens the possibility of supporting more analytics use cases and sets the foundation for real-time analytics.

#### Results

The transformation, powered by Cloudera, has resulted in more customer uptake from BNI's cross-selling product initiatives, improved data storage efficiency, reduced storage spending and provided a faster, safer experience for credit card customers.

With the new analytics capabilities, a cross-selling analytics model has helped identify over 2,500 business banking customers to be offered retail products. Among these leads, 52 percent have accepted offers of new products. To date, BNI has met or exceeded its cross-selling targets for 80 percent of its product segments and is using the results to improve other areas further.

For data archiving, BNI freed up approximately 30 TB (20 percent) of storage in its data warehouse in 2021. The optimization will save up to IDR3 billion (approximately USD211,000) per year. The freed storage will be allocated for data marts and integrated layers, which will speed up reporting by making more optimized data available for the report generation process. This can reduce waiting times for reports by up to 50 percent, making them available in one day instead of two. The new deployment will also enable the bank to create dashboards for executive management, business operations and create reports for regulatory authorities such as Bank Indonesia.

The new enhancements also enable the bank to offer more convenience and security to its credit card customers. It successfully rolled out the credit card transaction history feature in the BNI mobile application. Customers can now access their financial activities when posted conveniently on one mobile application – from core banking services to credit card information. For instance, they can access their billing history the next day after a transaction is made without having to wait until the next monthly billing cycle. With better visibility into their transaction history, customers can manage their spending more effectively and identify potential fraud sooner. BNI aims to provide real-time credit card updates with the future CDP Private Cloud Base upgrade.