CLOUDERA

Redefining Customer Experience in Financial Services

Make the Impossible, Possible with
Data and Analytics

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Get Closer to your Customer

Customers expect personalized, relevant interactions with financial services providers that understand their needs, and they have a wider variety of providers available to choose from than ever before. Studies show that consumers globally are more emotionally connected to their favorite brands that show they know them (i.e. Apple, Google, Amazon, Samsung, and Microsoft), than they are to their primary bank - a gap of **12%**[1].

While financial institutions know they need to get closer to customers, 70% of banking executives are concerned they lack sufficient data analysis capabilities[2]. In the quest to enhance the customer experience with data and analytics, financial services providers must balance *innovation* with *data security* and *speed to market* with *technology debt*, all while managing social considerations of bias, equity and inclusion.

12% gap

Customers feel more emotionally connected to their favorite brands versus their primary bank.

70%

of banking executives are concerned they lack sufficient data analysis capabilities.

"Get closer than ever to your customer. So close, in fact, that you tell them what they need well before they realize it themselves."

Steve Jobs, Apple

11%

Only **11%** of banking customers think their financial institution anticipates their financial needs[3].

Customer Experience is Demanding

The "customer experience", including everything from onboarding to customer service is under pressure beyond just accelerated digital adoption. A range of expectations is embedded in the scope of a provider's services today—personalized, help with financial literacy and instantaneous information.

Providers must address the digitally savvy, social media/gamified customers willing to "bank" anywhere while supporting more traditional customers. Financial wellness, personal financial management/budgeting tools are expectations. At the same time, financial inclusion and the underbanked are a top priority.

Factors in Customer Expectations

DIGITAL NATIVES		GREAT WEALTH TRANSFER
DIGITAL ADOPTION		FINANCIAL INCLUSION
EMBEDDED FINANCE		FINANCIAL WELLNESS
BANKING AS A SERVICE		OMNICHANNEL
MOBILE FIRST		UNBIASED
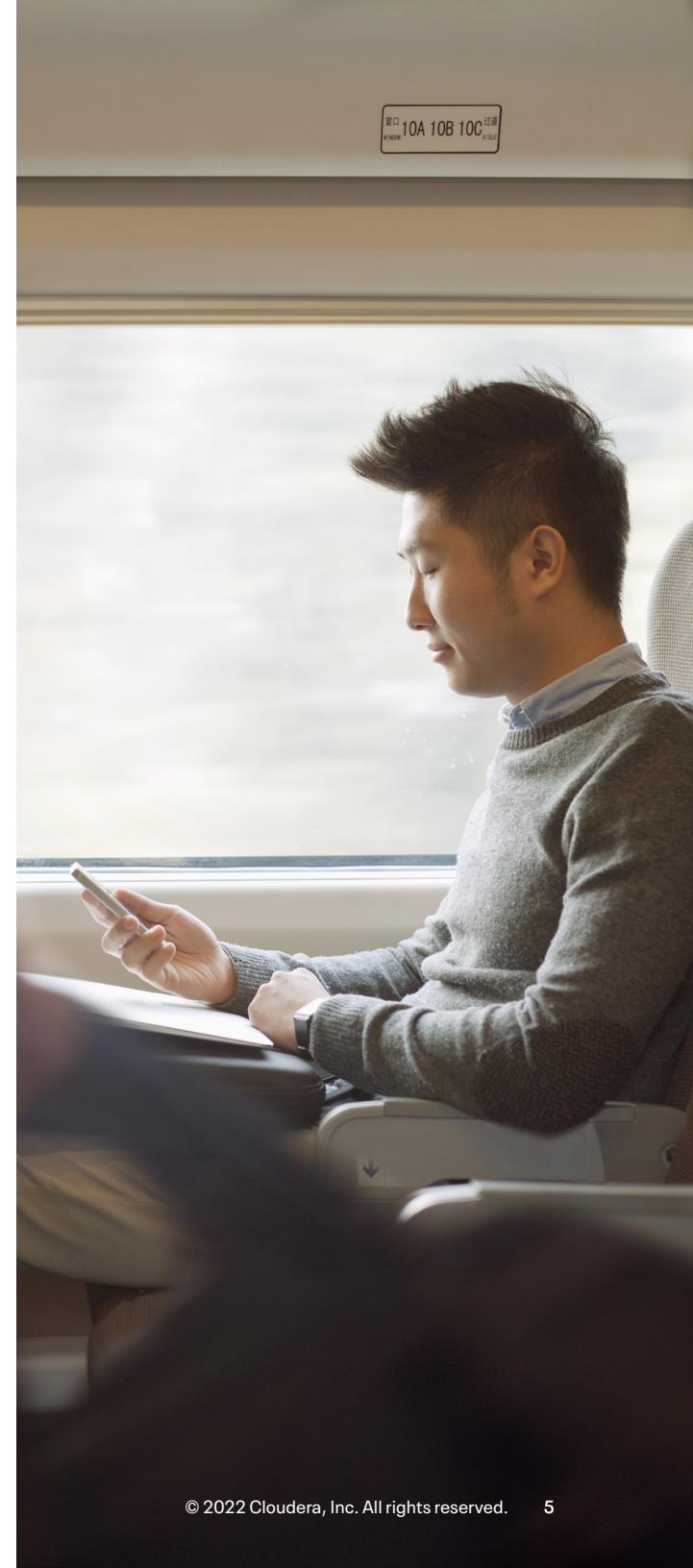
Enabling Personalization with Care

It is well understood that data is foundational to improve customer experience. Primary data and third party data enable a complete and holistic view of a customer. Harnessing that data and driving insights is the differentiator that drives stickier customer relationships and emotional connections. As providers develop and mature data strategies focused on enhancing customer experience, scrutiny is critical in governance and model integrity, while real-time data is essential.

MACHINE LEARNING / AI
- Deploy risk analysis and churn prevention
- Enable self-service business intelligence, Digital Assistants
- Activate predictive modeling to improve customer conversations
- Enhance fraud prevention

STREAMING / ALTERNATIVE DATA
- Leverage alternative data sources to expand customer credit profiles (rental payment history, mobile phone and utility bills behavior)
- Apply in-stream analytics to identify customer habits, enabling meaningful interactions, offers and advice
- Offer real-time alerts and interactive warnings

GOVERNANCE
- Manage permissions and usage rights aligned with privacy laws
- Protect sensitive data with proper access and security and maintain integrity, audit history
- Monitor historical data (or lack thereof) used to train models does not lead to biased outcomes
- Train models with a focus on equality and use alternative data to avoid bias; Monitor bias proactively

89%

of Lenders say alternative credit data allows credit to be extended to more consumers[4]

30M

households in the US are considered unbanked or underbanked[5]

Cloudera Data Platform

Cloudera Data Platform (CDP) is a hybrid data platform that enables you to realize the full potential of your data for customer experience. CDP supports the full data lifecycle—streaming data, data engineering, data warehousing, operational database and machine learning.

CDP is designed for flexibility and choice in how you deploy and manage your customer experience data—using any cloud, any analytics, any data—with a consistent experience that's portable across infrastructures. Cloudera Shared Data Experience (SDX) manages consistent security and governance across deployment platforms. SDX makes CDP secure by design with consistent policies everywhere.
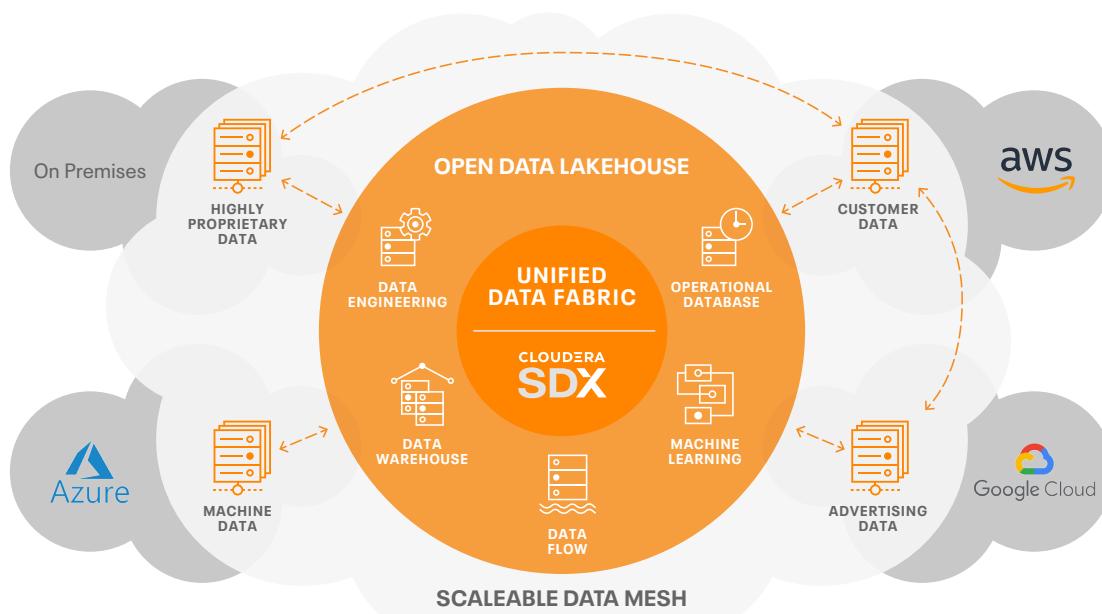
Incrementally Progress your Customer Experience initiatives

Leveraging data to enhance customer experience is a continuous, iterative journey. Whether your organization is just embarking on your data-driven journey or trying to enhance various areas, CDP offers options to get started and realize advancements more quickly.

Universal Data Distribution

Connect to any data source, process, and deliver to any destination through a cloud-native universal data distribution service. It supports collecting data in a hybrid world, connecting to any data source with any structure. It enables that data to be delivered to any destination including data lakes, lakehouses, data meshes, and cloud services.

- Cloud-native service powered by Apache NiFi
- Flow-based low-code development paradigm that aligns with how developers design, develop, and test data distribution pipelines
- Over 400+ connectors and processors across the ecosystem of hybrid cloud services and on-premises sources enables indiscriminate data distribution

Learn more

AMPs

Applied Machine Learning Prototypes (AMPs) are Machine Learning projects that can be deployed with one click directly from Cloudera Machine Learning (CML). AMPs enable data scientists to go from an idea to a fully working ML use case in a fraction of the time. It provides an end-to-end framework for building, deploying, and monitoring business-ready ML applications instantly.

- Prototypes encode best practices for solving machine problems.
- Each step in the solution (e.g. data ingest, model training, model serving etc.) is declared in a yaml configuration file.
- Run examples locally or automatically deploy steps within your configuration file using Cloudera Machine Learning.

Learn more and Try the Churn Modeling AMP

Making the Impossible, Possible

Financial services providers globally use Cloudera to redefine and reinvent the meaning of customer experience. The following success stories highlight how Cloudera customers use data and analytics to delight customers in areas of:

- Target Marketing

- Cross-Selling

- Superior Customer Care

- Financial Inclusion

Top-20 Bank (UK)

The bank turned to the Cloudera platform in order to effectively access, join and process significant volumes of data to build a 360-degree customer view of their profile and understand customers better. This data is used to help meet the evolving demands across the customer journey, in a hyper-personalized way, creating a tremendous end-to-end customer experience.

As an example, previously, the bank used a customer's credit history when determining whether a customer should be approved or denied for financing. Customers with no credit history were being rejected often. Now, it can use other ways to approve customers, including basing it on paying their bills on time or their monthly cash flow. Now 15% more customers are approved for credit.

Learn more

curinos

Curinos (US)

Curinos built a self-service customer journey analytics solution on Cloudera. The platform integrates customer accounts and transaction data from more than 30 institutions with third party data, and applies machine learning models to operationalize customer scores, such as customer potential value (CPV), for a variety of use cases, including offer optimization, customer retention targeting, and cross-sell and upsell activities.

Results include a 50 percent reduction in marketing cost execution for a large US bank and more than $15 million in new opportunities identified for every $1 billion in deposits at several large financial institutions.

Learn more

Target Marketing and Personalization

MICRO-SEGMENTATION, TARGETING

NEXT BEST ACTION

CUSTOMER JOURNEY ANALYTICS

CAMPAIGN ANALYTICS

Churn Prevention and Customer Retention

CHURN MODELING AND PREDICTION

LIFE-TIME VALUE

CROSS-SELL, UP-SELL

BNI

Bank Negara Indonesia (BNI)

With the Cloudera 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. The transformation has resulted in more customer uptake from BNI's cross-selling product initiatives, improved data storage efficiency, reduced storage spending and 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.

Learn more

UOB

UOB (Singapore)

With the Enterprise Data Architecture and Governance (EDAG) platform based on Cloudera, the bank now has a single big data source of truth that will become the strategic advantage for the bank going forward.

Through the discovery sandbox – a data monetization enabler – UOB also launched a deposit analytics solution to ensure it can build stable deposits with optimal pricing and provide consistent and accurate views of deposits. The solution led to higher revenues, increased productivity by 20% and improved risk control. Benefits of the solution include higher uptake of operational services, which has led to an increase in operational balances and client deposit wallet size, improvements in deposit stickiness that help improve UOB's liquidity and finally more streamlined monitoring of forecasted regulatory ratios that help improve regulatory compliance.

Learn more

UnionBank

Union Bank of the Philippines

Armed with a central data hub that powers a new suite of AI/ML capabilities, UnionBank improved its standard of customer offerings.

UnionBank has improved its cross-selling capabilities via AI-powered 'look-alike' models. For bancassurance products, the new model leverages data such as customers' average daily balance on record or the relationship manager's personal network of customers to create more leads. The models have also helped UnionBank achieve 187% (telesales) and 237% (electronic direct mailers or EDMs) increases in average monthly conversion rate in credit cards. They also improved monthly auto loans conversion rates by 178% (EDMs). They have also brought about a multitude of business and process improvements including more time saved, higher conversion rates, and better affinity with customers.

Learn more

Rabobank

Rabobank (NL)

Rabobank was able to create a new data lake that would allow its employees to run faster queries across a single SQL interface including both historical and real-time data. From customers' loan repayment patterns to up-to-the-minute transaction records, Rabobank and its customers could now immediately access the valuable data needed to help them understand the status of their financial situation.

By implementing the platform and gaining the ability to stream real-time data, Rabobank can now detect warning signals in extremely early stages of where clients may go into default. Through their new, governed data lake, Rabobank's account managers are also able to access an in-depth overview of customer data, enabling them to generate liquidity overviews and advise customers on how to avoid defaulting.

Learn more

YES BANK

YES Bank (India)

YES BANK leverages the benefits of machine learning to consolidate all customer data and personalize services thereby transferring the benefits of analytics directly to customers. The bank built a neural-network-based transaction purpose model, which looks at roughly 1,000 features and classifies the true purpose of every single customer transaction. The results have been a game-changing digital experience with proactive customer service.

With a unified data platform built on Cloudera, YES BANK now develops be-spoke and inventive solutions with quicker turn-around times for product launches and updates. Empowered by the accessibility and agency over its data, YES BANK has brought a previously out-sourced customer loyalty program in-house, which has saved them a quarter of a million dollars every year.

Learn more

Proactive Care

CUSTOMER SURVEY, FEEDBACK ANALYTICS

DIGITAL ASSISTANTS

DEEPER CUSTOMER INTELLIGENCE IN CRM

PERSONALIZED, PROACTIVE CUSTOMER SERVICE

OVO

PT Visionet Internasional (OVO)

To build an intelligent, data-driven, and agile strategy to meet the needs of its customers and its partners, OVO used Cloudera's platform to power OVO UnCover. Unlike banks, which rely largely on mass marketing to reach new and existing customers, OVO prioritizes speed, data analytics, and machine learning to reach new customers. By leveraging data-driven technology, OVO looked to operate in real-time, move faster than its competitors, and deliver more personalized, intuitive customer communication for meaningful interactions with Indonesians not yet familiar with the financial system.

The sales funnel uplift achieved using OVO UnCover has proven to be nearly eight times more effective than traditional mass marketing. Intelligent, real-time data analytics has enhanced internal operating efficiencies and enabled OVO to better understand individual customer needs by processing millions of records.

Learn more

BANK BRI

PT Bank Rakyat Indonesia (Persero) Tbk (BRI)

With Indonesia in the bottom four countries for financial literacy, and an estimated $8.3 billion of its currency held outside the banking system, there is both a challenge and opportunity for BRI. The bank needed a solid foundation that allowed it to leverage the power of advanced analytics, artificial intelligence (AI), and machine learning (ML) to gain a better understanding of customers and the market.

BRI built an agile and reliable predictive augmented intelligent solution to enhance its credit scoring system. The solution analyzes customer transaction data and predicts the probability of customers defaulting on payments the following month. It also alerts BRI's loan officers to at-risk customers, prompting them to take the necessary action to reduce the likelihood of net profit loss

Learn more
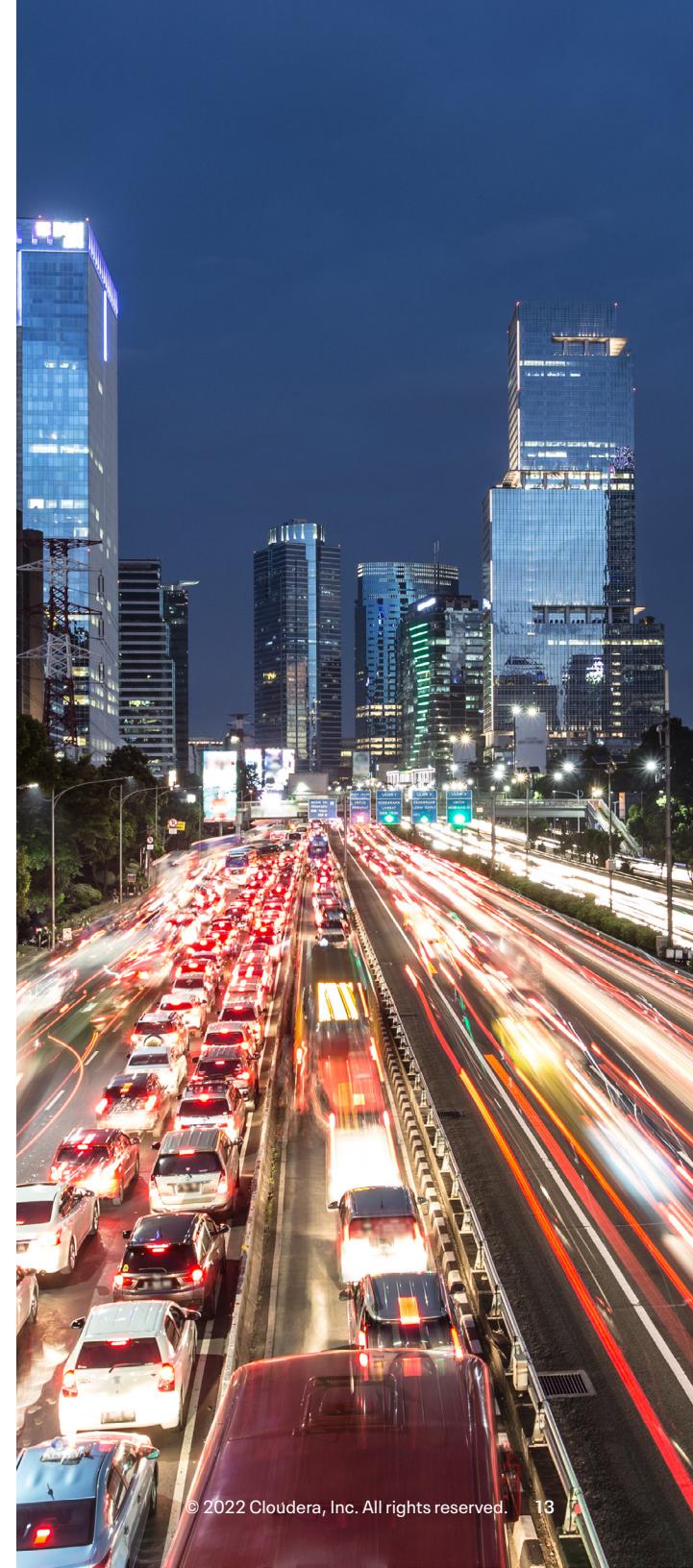
Cloudera Data Platform for Financial Services

Delighting today's customers and advancing financial inclusion requires a modern, flexible approach to managing customer and transactional data. Effective data management means the ability to collect, process, store, and analyze any type of data, including structured and unstructured, whether it lives at the edge, in the data center, public cloud, or a hybrid cloud.

Cloudera Data Platform empowers financial services firms to get clear and actionable insights from complex data anywhere. With the ability to analyze batch and streaming data, financial services organizations can use machine learning, advanced analytics, and AI technologies to target new opportunities to expand, cross-sell services and better serve customers.

Learn more

Cloudera is trusted by financial services globally to support their data and analytics strategies. For more information on how Cloudera supports financial services, visit cloudera.com.

Cloudera in Financial Services:

9 of 10
Top Global Banks

4 of 5
Top Stock Exchanges

8 of 10
Top Wealth Management Firms

4 of 4
Top Card Networks

About Cloudera

At Cloudera, we believe data can make what is impossible today, possible tomorrow. Cloudera taught the world the value of data, creating an industry and ecosystem powered by the relentless innovation of the open source community. We empower our customers, leaders in their industries, to transform complex data into clear and actionable insights. Through our hybrid data platform, organizations are able to build their data-driven future by getting data, no matter where it resides, into the hands of those that need it.

Learn more at cloudera.com | US: +1 888 789 1488 | Outside the US: +1 650 362 0488

Sources

[1] Deloitte, Accelerating digital transformation in banking

[2] Capgemini, World Retail Banking Report 2022

[3] The Financial Brand, Critical Strategies to Meet Increasing Digital Banking Expectations

[4] Experian, 2020 State of Alternative Credit Data

[5] Deloitte, Accelerating toward greater financial inclusion

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