



# **BEST PRACTICES FOR BUILDING AGILITY AND INSIGHT IN YOUR FINANCIAL SERVICES BUSINESS**

# TRANSFORM YOUR FINANCIAL INSTITUTION

From Fintech disruption and opportunity, to handling ever growing volumes, sources and types of data, banks today face an array of challenges. Find out how a range of leading financial institutions have turned these obstacles into opportunities using the latest technologies from Intel and its ecosystem.



## CREATING A NEXT GENERATION CUSTOMER EXPERIENCE

With more customer information at their fingertips than ever before, learn how several financial institutions have turned vast amounts of data into a personalized customer experience.

## INCREASE PRODUCT RELEVANCE, ACCURACY AND TIMELINESS

Using Intel® Saffron™ Cognitive Solution, one bank improved the accuracy of its product recommendations and increased their relevance to customers<sup>1</sup>.



## GENERATING BUSINESS INSIGHTS THROUGH ADVANCED ANALYTICS

The use of AI and other breakthrough technologies is enabling financial institutions to develop new insights based on analytics. These insights are improving efficiency and driving better decisions across the organization.

## SAVE EMPLOYEE TIME

One large financial institution with more than 30,000 employees is using the Intel® Nervana™ platform for deep learning to save portfolio managers time in their daily routines<sup>2</sup>.



## BUILDING THE AGILE BANK OF THE FUTURE

From mobile-only banking to remote management technologies, to stay ahead of industry disruptors banks cannot stand still. Discover how financial institutions are accelerating cloud adoption to become more agile.

## ACCELERATE SERVICE DELIVERY

By deploying a new private cloud infrastructure, Bank Leumi can now set up new services in three hours instead of three weeks<sup>3</sup>.



## MANAGING GROWING DATA VOLUMES TO FIGHT FRAUD AND MINIMIZE RISK

Financial institutions need to monetize their data while ensuring they have a 360-degree overview to manage risk. See how financial institutions are using technologies from Intel and its ecosystem to address these challenges.

## IMPROVE FRAUD DETECTION

Intel® Saffron™ Cognitive Solution examined 113,000 claims from one year in one state, and found three potential fraud rings warranting further investigation in less than one month<sup>4</sup>.

1 <https://www.intel.co.uk/content/www/uk/en/financial-services-it/customer-empowerment-through-predictive-analytics.html?cache=true456>

2 <https://www.intel.co.uk/content/www/uk/en/financial-services-it/deep-learning-delivers-advanced-analytics-brief.html>

3 <https://www.intel.com/content/www/us/en/financial-services-it/mobile-only-banking-case-study.html>

4 <https://www.intel.co.uk/content/www/uk/en/financial-services-it/solutions/detecting-reducing-fraud-rings-case-study.html>

# CREATING A NEXT GENERATION CUSTOMER EXPERIENCE

With advanced analytics, banks can deliver a personalized customer experience driven by data. Read the case studies in this section to understand how several leading financial institutions have excelled.

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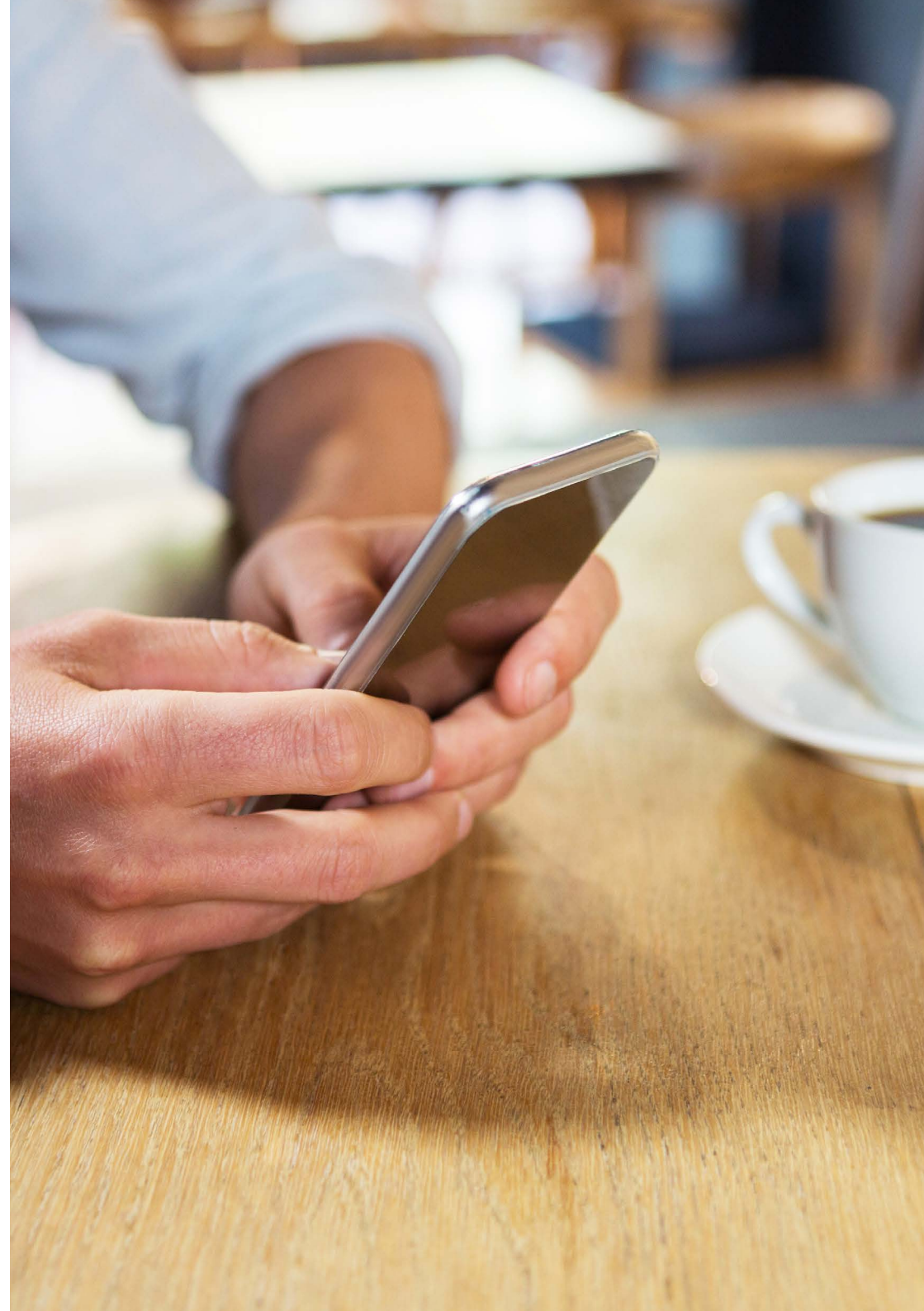
**01** Deploying open source, open standards, and cloud technologies to enable effective experimentation and growth

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**02** Empowering customers through predictive analytics

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**03** Transforming customer models with predictive analytics



## Creating a Next Generation Customer Experience

Generating Business Insights through Advanced Analytics

Building the Agile Bank of the Future

Managing Growing Data Volumes to fight Fraud and Minimize Risk



## 01 Commonwealth Bank of Australia

# DEPLOYING OPEN SOURCE, OPEN STANDARDS, AND CLOUD TECHNOLOGIES TO ENABLE EFFECTIVE EXPERIMENTATION AND GROWTH

As the complexity and scale of the banking industry grows, financial institutions are turning to cloud-driven analytics to offer customers innovative services in the timeframe they expect.

Commonwealth Bank of Australia (CBA) - one of the country's largest banks - deployed open source, open standards and hybrid cloud technologies using Intel® Xeon® processors to manage, evolve and grow its analytics workloads while also reducing operational expenditures. This is enabling the bank to achieve its vision of securing and enhancing the wellbeing of its 19 million customers.

Two-and-a-half years into its journey, the bank has:

- Enabled innovation focused on delivering business outcomes by experimenting from the ground-up using open source software. The developer community has then been able to deliver validated learnings more quickly, before commercial constructs are added.
- Made its systems more robust, enabling it to move fast while remaining stable, cheap and sustainable.
- Boosted its bottom line by achieving significant savings. Operational expenditure has been cut on a per unit basis by approximately 50 percent<sup>2</sup>. Service and infrastructure costs have also been reduced by 90 percent, when compared to existing baseline service costs<sup>3</sup>.
- Delivered a better experience for its software engineers and data scientists, enabling it to cut the production time for applications from two weeks to three hours<sup>4</sup>. Empowering developers to deliver services that affect customers' lives has also helped CBA to attract and retain key talent.

1,2,3,4 <https://www.intel.co.uk/content/www/uk/en/cloud-computing/commonwealth-bank-customer-testimonial-video.html>

Intel® / Ecosystem technologies:  
Intel® Xeon® processors

**“PREVIOUSLY IT WOULD TAKE ABOUT TWO WEEKS TO GET SOMETHING INTO PRODUCTION, TODAY APPS ROLL OUT ON A DAILY BASIS INSIDE OF THREE HOURS.”**

**Quinton Anderson**  
Head of Engineering, Analytics and Information, CBA

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02 Anonymous Financial Institution

## EMPOWERING AND RETAINING CUSTOMERS THROUGH PREDICTIVE ANALYTICS

With intense competition across the banking sector, customers are in the driving seat. This is leading many banks to invest in personalized intelligence solutions which enable them to better understand their customers and anticipate their needs to help them strengthen their relationships.

One leading financial institution (FI) recognized it needed to move beyond its traditional segmentation approach and harness the power of artificial intelligence (AI) technology to identify and act on the preferences of individual customers.

The FI's traditional approach used rules-and-models to segment its multi-million-member population. That was too limiting, as it lacked details about customers' specific circumstances and preferences. Ultimately, the FI wanted to anticipate the defining events in their lives and understand their readiness for particular products and services.

The FI deployed the Intel® Saffron™ Cognitive Solution, which analyzed five years of data across hundreds of thousands of its members to anticipate what customers were likely to purchase, and what relevant and personalized product recommendations individual customers should be served with.

The solution delivered more accurate insights in just a few weeks than a traditional modelling approach would produce in 18 months<sup>1</sup>.

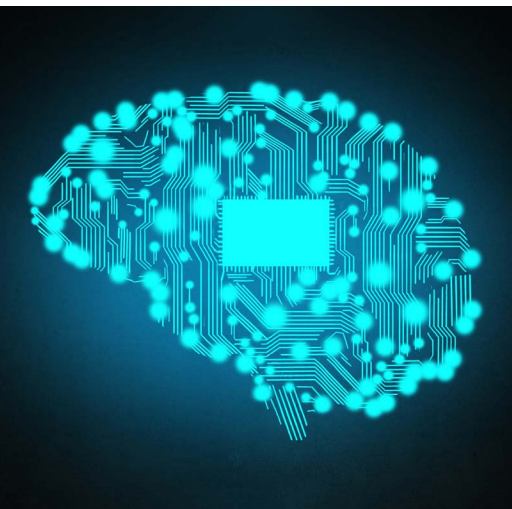
Intel® / Ecosystem technologies:  
Intel® Saffron™ Cognitive Solution

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**INTEL® SAFFRON™ COGNITIVE SOLUTIONS TRANSFORMED THE FI'S RULES-AND-MODELS BASED APPROACH, CUTTING THE DELIVERY TIME FOR NEW CUSTOMER INSIGHTS FROM OVER 18 MONTHS TO A FEW WEEKS<sup>2</sup>.**

Learn more

<sup>1,2</sup> <https://www.intel.co.uk/content/www/uk/en/financial-services-it/customer-empowerment-through-predictive-analytics.html?cache=true456>



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03 Aviva

## TRANSFORMING CUSTOMER MODELS WITH PREDICTIVE ANALYTICS

Integrating analytics into business processes can be challenging, in part because of the advanced computing power this requires. But technologies by Intel and its ecosystem are providing solutions that can help to process ever-increasing data volumes and enable financial institutions to make data-driven decisions.

Historically, insurance provider Aviva built generic models for all its customers. It was looking to switch to propensity-based models for individual customer groups that would ensure the company was not spamming customers with potentially irrelevant offers.

By investing in SAP InfiniteInsight\* predictive analytics technology, Aviva now receives automatic analysis of the individual contributions of hundreds of variables to a model. In contrast, previously only a limited number of variables could be inspected manually<sup>1</sup>. Marketers can also visualize the business impact of models more clearly.

SAP InfiniteInsight\* also enables more propensity models to be created in a shorter period of time and there can be up to 30 models in production at once<sup>3</sup>. This ensures Aviva has access to data on the latest customer trends, enabling them to optimize their marketing campaigns and, ultimately, provide customers with timely, relevant offers.

<sup>1,2</sup> <https://www.intel.com/content/www/us/en/financial-services-it/article/analytics-business-lessons.html>  
<sup>3</sup> <https://www.sap.com/about/customer-testimonials/insurance/aviva.html>

Intel® / Ecosystem technologies:  
Intel® Xeon® processors  
SAP InfiniteInsight\*

**“IN THE PAST, IT HAS VERY MUCH BEEN DONE ON WHAT THE MARKETERS THINK MIGHT BE GOOD. THEY USED GUT FEEL. WHAT WE ARE TRYING TO DO IS PUT THE EVIDENCE INTO THAT SYSTEM AND SAY, BECAUSE IN THE PAST THIS HAS HAPPENED, IN THE FUTURE WE CAN DO SOMETHING BETTER.”**

**Margaret Robins**  
Analyst at Aviva

Learn more

# GENERATING BUSINESS INSIGHTS THROUGH ADVANCED ANALYTICS

Analytics can improve processes and decisions across the bank, saving valuable time and resources. Read the case studies in this section to understand how other financial institutions have achieved success.

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**01** Becoming an information company with cloud and big data

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**02** Faster time to insights helps drive business advantages

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**03** Helping staff work smarter and faster with deep learning



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01 CaixaBank

## BECOMING AN INFORMATION COMPANY WITH CLOUD AND BIG DATA

The growth of online and mobile banking over the last few years has driven a huge increase in data volumes for CaixaBank. Being able to properly collect, manage and analyze this data is now key to everything the bank does, from delivering compelling, personalized services to customers, to identifying and combatting fraud attacks and meeting compliance requirements.

To effectively meet this data-driven challenge, CaixaBank believes that it – like every other bank – must rethink its identity. As Xavier Gonzalez Farran, director of big data tools at the bank, explains: “We’re taking the necessary steps to become an information company. We believe that’s the key to success in the near future.”<sup>1</sup>

The bank has implemented a big data solution based on Oracle Appliance, Exalytics and Exadata, and powered by Intel® Xeon® E7 processors. The solution pulls all its data together into an interconnected platform that enables the bank to load data into the environment that most suits the data type or how it is used by the business. The bank can then build applications that are able to access the data they need, wherever it is.

With a more cohesive view of its data, CaixaBank can apply advanced analytics to generate insights that will drive innovation and streamline operations. For example, the bank can now provide offers to customers that are personalized to the individual, rather than tailored to a customer segment<sup>3</sup>. It’s also using predictive models to help improve its risk management.

<sup>1,2,3</sup> <https://www.intel.com/content/www/us/en/big-data/caixabank-analytics-in-banking-video.html>

**Intel® / Ecosystem technologies:**

Intel® Xeon® E7 processor

Oracle Big Data Appliance\*

Exalytics\*

Exadata\*

**“THE ENTERPRISE IS ASKING US TO CAPTURE INFORMATION ONLINE ON WHAT IS HAPPENING EVERY HOUR OR EVERY MINUTE WITHIN OUR BUSINESS. BIG DATA IS OUR NEW MAINFRAME AT CAIXABANK, AND WE HAVE TO CHANGE THE CULTURE, SO THAT PEOPLE TRANSITION FROM THE TRANSACTIONAL WORLD TO THE INFORMATIONAL WORLD.”<sup>2</sup>**

**Luis Esteban Grifoll**  
Chief Data Officer, CaixaBank

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## 02 A Large Insurer

# FASTER TIME TO INSIGHTS HELPS DRIVE BUSINESS ADVANTAGE

For many long-established financial services organizations, one of the main hurdles in transforming to a digitally-led business model is modernizing the way they manage and use data. After more than 80 years in operation, one large personal insurer had collected huge amounts of data. As part of its digitization strategy, it needed to bring together all this historic company data with external information on traffic patterns, socioeconomic studies, and weather. It also wanted to unite all its data into one place, and move away from the siloes that it currently held, which enabled it for example to view data state by state, but not across multiple states at once.

The insurer united its data by building an enterprise data hub with Cloudera Enterprise\* and using Hadoop to break down data siloes and create a single view. With this new foundation, it can bring together data that it has never been able to combine before and create opportunities to glean new insights.

It runs descriptive analytics models across its nationwide data using an open source software called Apache Hive\*. It has seen an average 7,500 percent increase in the speed of its analytics as a result<sup>1</sup>. It is able to create models that help the business customize products that align more closely to individual customers' behaviors, risks and preferences. This in turn helps to maximize the lifetime value of each customer and develop differentiated marketing offers that help increase cross- and up-selling opportunities.

<sup>1,2</sup> <https://www.intel.co.uk/content/www/uk/en/financial-services-it/case-study-enterprise-data-hub-fsi.html>

### Intel® / Ecosystem technologies:

Intel® Xeon® processors  
Cloudera Enterprise Hub\*  
Apache Hadoop\*  
Apache Hive\*

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**OPEN SOURCE ANALYTICS  
ACROSS A CENTRALIZED DATA  
PLATFORM ALLOWED A LARGE  
INSURER TO INCREASE THE  
SPEED OF ITS ANALYTICS BY<sup>2</sup>  
7,500%**

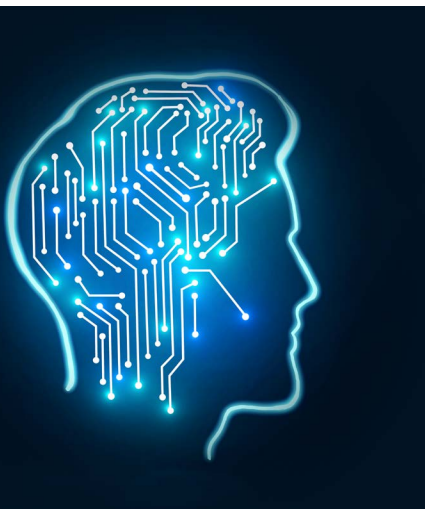
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### 03 Anonymous Financial Institution

## HELPING STAFF WORK SMARTER AND FASTER WITH DEEP LEARNING

Banks and other financial institutions around the world are challenged to keep up with the ever-increasing volumes of data that are pouring into their organizations, in a variety of formats and from a multitude of channels. This can be anything from database information to call center recordings to social media sentiment.

For business users, this data can be a gold mine of insight and inspiration. It can show them patterns in customer preferences, market trends and fraud activity. It can help them make better decisions about strategy and get things done more quickly, with less uncertainty. However, with the data growing all the time and changing constantly, it's not possible for an individual user to review and analyze it all, and come up with workable outcomes. How do they know they've considered all the relevant information? And even if they have, what if the data they have used has become obsolete by the time they've completed their analysis?

This is where advanced analytics capabilities like deep learning come in. By using algorithms that mimic human thought processes and continually update themselves, these technologies can identify trends from huge data sets that may be invisible to humans viewing just a subset of that data. And they can keep up with real-time changes to the data.

One large financial institution uses the Intel® Nervana™ AI solution to review 30,000 documents every day, including emails, internal files, online information and financial news<sup>1</sup>. It then creates summaries that condense the key points into an easily digestible overview for portfolio managers, allowing them to make more accurate decisions faster while minimizing the amount of time they need to spend on research and admin.

<sup>1,2</sup> <https://www.intel.co.uk/content/www/uk/en/financial-services-it/deep-learning-delivers-advanced-analytics-brief.html>

**Intel® / Ecosystem technologies:**  
Intel® Nervana™ platform  
for deep learning

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**THE INTEL® NERVANA™ AI  
SOLUTION SUMMARIZES  
30,000  
DOCUMENTS PER DAY**  
so sales executives always have the  
right information at their fingertips<sup>2</sup>

Learn more

# BUILDING THE AGILE BANK OF THE FUTURE

As established financial institutions look to deliver innovative new services and remain relevant in a competitive banking landscape, this section explains how several banks have succeeded in driving innovation.

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**01** Speeding new service delivery in a private cloud environment

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**02** Delivering personalized service to mobile customers

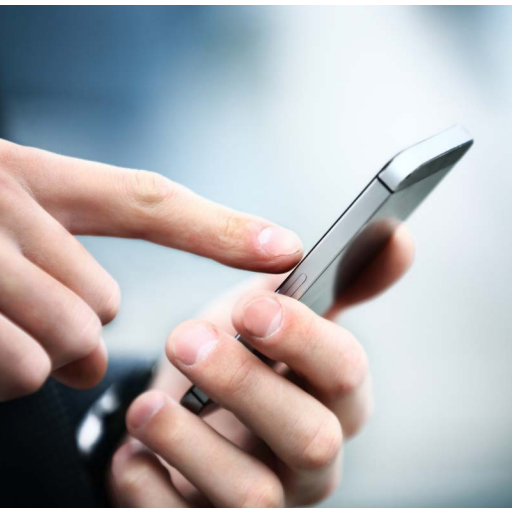


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## 01 Bank Leumi

# SPEEDING NEW SERVICE DELIVERY IN A PRIVATE CLOUD ENVIRONMENT

Bank Leumi takes pride in its reputation as an innovator in the financial services space. It was the first bank in Israel to launch a mobile-only bank service, designed to appeal to the growing number of customers for whom a branch-based model is no longer appealing.

In order to deliver this digitally native, hyper-agile service, Bank Leumi needed a more responsive IT environment that would enable it to bring new services to market quickly and cost-effectively. This meant bringing together a number of data siloes into one environment that disparate development teams could access.

It did this by creating a private cloud environment powered by technology from Intel, VMware and Dell EMC, which has helped boost business agility significantly. The bank can now set up a new service in just three hours, compared to three weeks previously<sup>1</sup>. It can also define firewall policies within just 15 minutes instead of eight hours<sup>2</sup>. These efficiency improvements are complemented by the fact that the de-siloed environment also means developers and stakeholders across the business can work together more efficiently and flexibly than before, ensuring the business is ready for future innovation.

<sup>1,2,3</sup> <https://www.intel.com/content/www/us/en/financial-services-it/mobile-only-banking-case-study.html>

**Intel® / Ecosystem technologies:**

Intel® Xeon® E5 processors

Dell EMC vBlock\*

VMware NSX-v\*

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**“BEING ABLE TO SHOW [THE  
TEAM] THEY WERE DOING  
SOMETHING REALLY INNOVATIVE  
AND BEING PROVIDED WITH THE  
LATEST TECHNOLOGY RESOURCES  
TO DO IT HELPED DRIVE  
ENTHUSIASM... AND IT MADE A  
BIG DIFFERENCE TO THE QUALITY  
AND SPEED OF THE RESULTS WE  
WERE ABLE TO ACHIEVE.”<sup>3</sup>”**

**Shlomo Bistry**  
COO, Bank Leumi

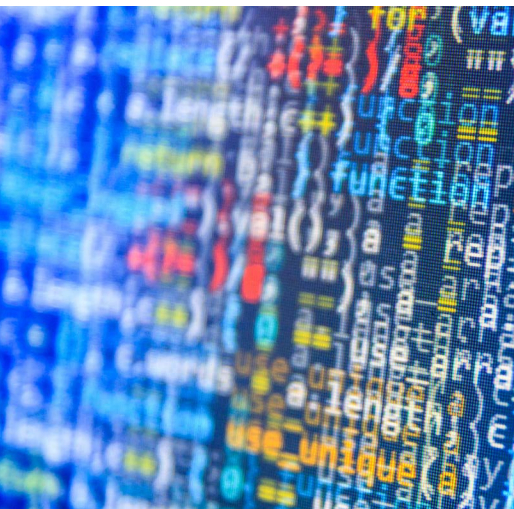
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02 BBVA

## DELIVERING PERSONALIZED SERVICE TO MOBILE CUSTOMERS

For leading Spanish high-street bank BBVA, the shift in customer behavior that has been driven by the introduction of new channels such as online and mobile is clearly visible. A typical customer visits one of the bank's branches just four times a year, but uses its mobile service 150 times in the same period<sup>1</sup>.

These customers expect to access their account anywhere, any time and from any device. They also expect a personalized, immediate service.

Previously, each BBVA branch had had its own IT environment, which tended to operate independently of each other in many aspects. This meant that, for example, a customer visiting a BBVA branch while away from home might have a much less personalized or informed service than if they were visiting their usual branch.

As part of its digital transformation strategy, the bank worked with Intel to create a centralized repository of all its data. This allows staff and customers to securely access the information they need, wherever and whenever they need to. It also gives software developers the opportunity to create applications for the bank that add more value both to the business and its customers.

The project has helped bring the business and IT teams closer together, ensuring that the bank's ongoing digital transformation efforts remain closely tied to business objectives.

<sup>1,2</sup> <https://www.intel.co.uk/content/www/uk/en/cloud-computing/bbva-customer-testimonial-video.html>

Intel® / Ecosystem technologies:  
Intel® Xeon® Scalable processors

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**“TRANSFORMATION IS CRITICAL  
FOR OUR CLIENTS... IT IMPLIES  
BEING ABLE TO OFFER ALL OUR  
PRODUCTS AND SERVICES  
IN REAL TIME, THROUGH  
MOBILE, SECURELY AND  
GIVING THE CLIENT A LEVEL OF  
PERSONALIZATION THAT USES  
THE DATA WE HAVE AND REALLY  
MAKES THEM FEEL UNIQUE. ?”**

**Ignacio Bernal**  
Global Head of Architecture  
and Technology  
Transformation, BBVA

Learn more

# MANAGING GROWING DATA VOLUMES TO FIGHT FRAUD AND MINIMIZE RISK

With the volume of online transactions continuing to rise, fighting fraud remains one of the biggest challenges facing banks. Learn how several financial institutions have used growing data volumes to detect and reduce fraudulent activity.

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**01** Fighting fraud with real-time data analysis

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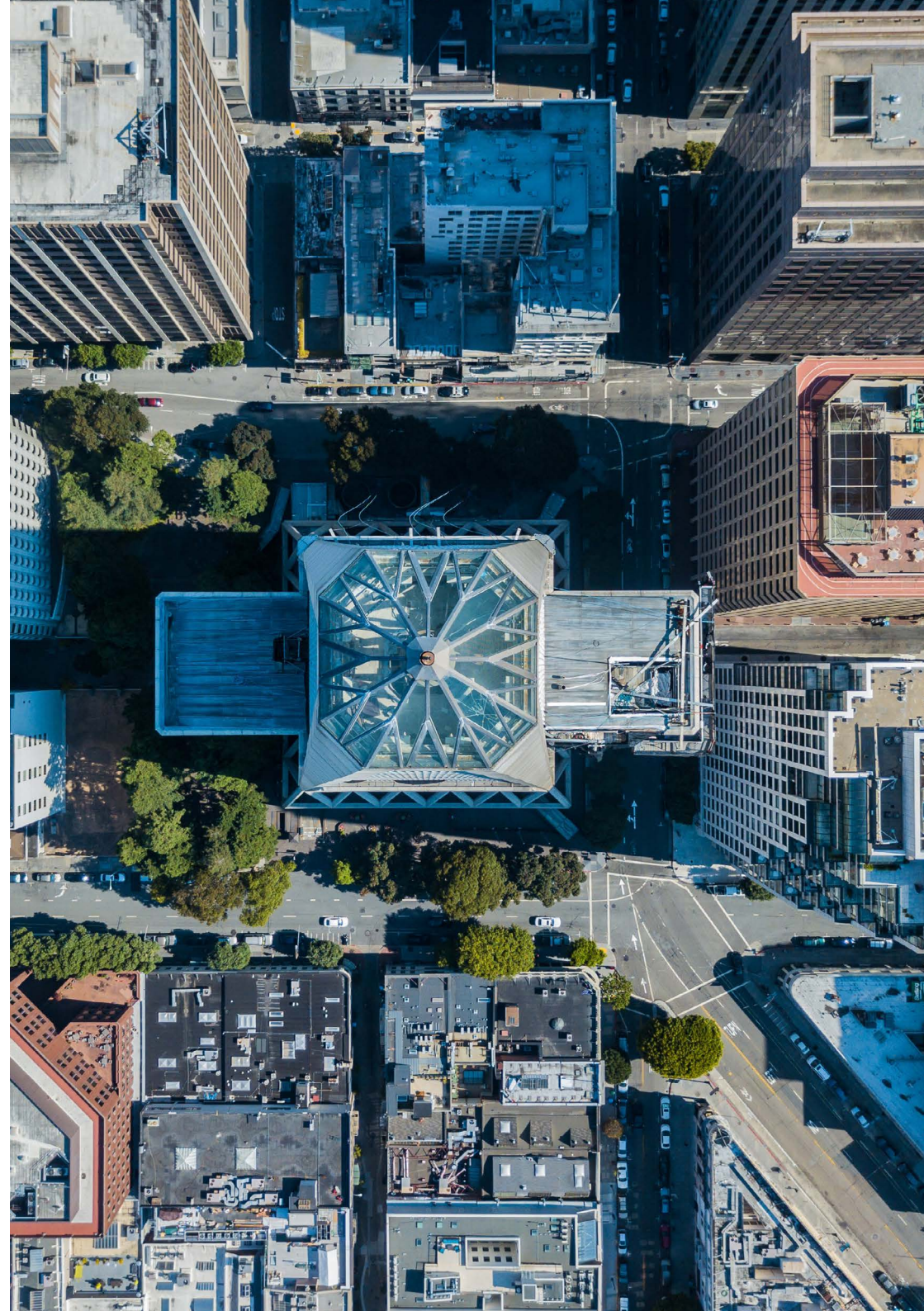
**02** Proactively mitigating risk with machine learning

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**03** Streamlining data processing workflows to combat fraud

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**04** Detecting fraud rings, sooner, to improve profitability



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01 HSBC

## FIGHTING FRAUD WITH REAL-TIME DATA ANALYSIS

HSBC – one of the world's largest financial institutions – serves over 52 million customers across 74 countries and territories, and it is at the forefront of the fight against fraud.

This involves making split-second decisions about the millions of digital transactions that are in process at any given moment. Each of these transactions has a varying level of risk attached to it, and many that might seem routine for the purchaser may require particular attention. For example, a payment request of \$2,000 to purchase a HDTV would qualify as a high-risk transaction<sup>1</sup>.

When considering a transaction like this, HSBC must balance the customer's need for convenience with their desire for security. While rejecting a legitimate purchase could anger a customer and cost the bank the fee income from the purchase, if the transaction is fraudulent, approval would result in the customer becoming a victim of crime and put the bank \$2,000 out of pocket. Getting the decision wrong either way could result in account churn.

HSBC has deployed the SAS Fraud Management\* solution to monitor customer transactions. This solution enables the bank to:

- Monitor multiple lines of business on one platform, scanning purchases, payments, fund transfers and non-monetary transactions in real-time<sup>3</sup>.
- Use raw data to monitor 100 percent of customer transactions. This unique 'signatures' approach captures customer behavior patterns from every source, and evaluates that information every time a transaction is scored<sup>4</sup>.
- Better understand how customers transact, and how they conduct their overall relationships with the bank<sup>5</sup>.

<sup>1,2,3,4,5</sup> <https://www.intel.com/content/www/us/en/financial-services-it/article/analytics-business-lessons.html>

**Intel® / Ecosystem technologies:**  
Intel® Xeon® processors  
SAS Fraud Management\*

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**HSBC USES RAW DATA ANALYSIS  
TO MONITOR 100 PERCENT  
OF CUSTOMER TRANSACTIONS  
IN REAL TIME, ENABLING  
IT TO SIGNIFICANTLY REDUCE  
FRAUD ACROSS TENS OF  
MILLIONS OF DEBIT AND  
CREDIT CARD ACCOUNTS<sup>2</sup>.**

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## 02 China UnionPay

# PROACTIVELY MITIGATING RISK WITH MACHINE LEARNING

China UnionPay, an international financial institution based in China and specializing in banking services and payment systems, handles up to 20 billion payments every year across emerging channels such as mobile, online and social media<sup>1</sup>. With traditional security risk models creating loopholes that could be exploited by criminals, it needed a more agile threat response system.

It moved from a rules-based risk control model to a neural-network model based on Apache Spark\* and powered by Intel® technology. This had several key benefits for China UnionPay:

- China UnionPay can now identify non-linear patterns in large data sets, with automatic updates ensuring new information can improve risk prediction accuracy.
- Whereas a rules-based system takes a binary view of whether a set of criteria have been met or not, a neural-network based model applies machine learning to update its system in tandem with new, evolving risks.
- China UnionPay has moved away from pre-configured alerts, and can now use historical data to swiftly analyze, aggregate and correlate data through machine learning and an evaluation model in real-time to evaluate risks.

As a result, China UnionPay has been able to deliver up to 60 percent greater accuracy versus its rules-based risk control systems<sup>2</sup>. The system has also enabled the in-house team to develop valuable insights for the application of analytical tools and data science practices to its raw data<sup>3</sup>.

**Intel® / Ecosystem technologies:**

Intel® Xeon® processors

Cloudera CDH\*

Apache Spark\*

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**CHINA UNIONPAY HAS BEEN  
ABLE TO DELIVER UP TO  
60 PERCENT  
GREATER ACCURACY**

with machine learning versus its  
rules-based risk control systems<sup>4</sup>.

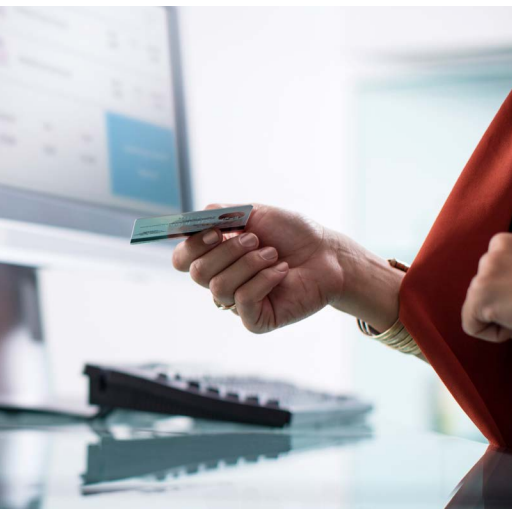
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### 03 Anonymous credit card company

## STREAMLINING DATA PROCESSING WORKFLOWS TO COMBAT FRAUD

As a result of the move to online financial transaction processing, a leading global credit card company is processing a ballooning number of daily transactions. Fighting fraud has been made even harder by the fact that, in financial services, anomalies usually occur because a fraudster has some prior information about how the current system works. This may include previous fraud cases and the fraud detection mechanisms themselves. As a result, the process of building a reliable statistical model for detection is complicated.

Although this large credit card processor had an annual \$1bn budget for data warehousing, its statisticians did not have the resources to conduct more than simple queries on small data samples<sup>1</sup>.

The company deployed Apache Hadoop\* as part of the Cloudera Enterprise Hub\* to streamline its data processing workflows, and immediately began examining data from a longer period of time. It was also able to leverage a wider range of sources to identify more potentially anonymous events.

When the company was notified of a small incidence of fraud, it was able to run an ad hoc descriptive analytics model on its long-term detailed data in Hadoop. This revealed a much larger pattern of fraudulent activity, which became the sector's largest detected incidence of fraud ever, resulting in \$30m of savings<sup>2</sup>.

<sup>1,2,3</sup> <https://www.intel.co.uk/content/www/uk/en/financial-services-it/case-study-enterprise-data-hub-fsi.html>

**Intel® / Ecosystem technologies:**

Intel® Xeon® processors

Apache Hadoop\*

Cloudera Enterprise\*

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**THE COMPANY DISCOVERED  
A MUCH LARGER PATTERN  
OF FRAUDULENT ACTIVITY,  
WHICH BECAME THE SECTOR'S  
LARGEST DETECTED INCIDENCE  
OF FRAUD EVER, RESULTING IN  
\$30M OF SAVINGS<sup>3</sup>.**

[Learn more](#)

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## 04 A top insurer

# DETECTING FRAUD RINGS, SOONER, TO IMPROVE PROFITABILITY

With the tools currently available to them, insurers miss many fraudulent claims. Special investigative teams within insurance companies are overwhelmed with new cases, resulting in the detection of just 1-3 percent of the 10 percent of claims likely to be fraudulent<sup>1</sup>.

In this context, a leading insurer wanted to reduce its multi-billion-dollar expenditures on auto insurance claims. This was the company's largest expense, and the company only avoided paying out 0.33% percent of the predicted 10 percent of fraudulent claims<sup>2</sup>. It needed a way to more effectively prioritize debatable claims, such as those with the most financial exposure, and provide a holistic view of all associations across all entities within these claims to detect possible fraud rings.

The insurer turned to Intel® Saffron™ Cognitive Solution which examined 113,000 claims from one year in one state, and found three potential fraud rings warranting further investigation in less than one month<sup>3</sup>. With further investigation, Intel® Saffron™ Cognitive Solution detected that these three rings were part of one larger ring that encompassed 38 claims and 42 participants<sup>4</sup>.

From these 38 fraudulent claims, the insurer unknowingly paid out approximately \$400,000 to questionable providers<sup>5</sup>. The business impact of this is huge, the insurer says. Avoiding these costly, unnecessary payouts helps to boost the company's bottom line.

<sup>1,2,3,4,5,6</sup> <https://www.intel.co.uk/content/www/uk/en/financial-services-it/solutions/detecting-reducing-fraud-rings-case-study.html>

**Intel® / Ecosystem technologies:**  
Intel® Saffron™ Cognitive Solution  
Apache Hadoop\*  
Cloudera Enterprise\*

In less than a month, Intel® Saffron™  
Cognitive Solution examined

# 113,000

**CLAIMS FROM ONE YEAR IN  
ONE STATE AND FOUND THREE  
POTENTIAL FRAUD RINGS<sup>6</sup>**

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