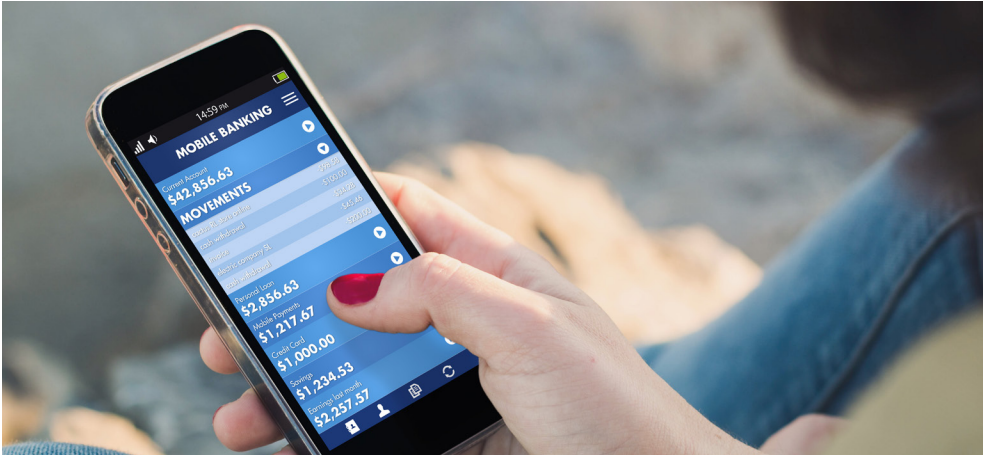


# Tinkoff Tames the Big Data Bear, Innovates at Lower Cost with Informatica



“Informatica helps Tinkoff deliver on the business expectations no matter how fast data volumes grow, how complex the data model is and whichever data sources need to be integrated. By harnessing big data across the bank, Tinkoff is now uniquely positioned to target, acquire and retain more customers.”

**Sergey Sotnichenko**  
Head of Data Warehousing

Tinkoff Bank burst onto the Russian financial services market in 2006 with a mission to reinvent the way retail customers engage with banks. Tinkoff Bank operates a disruptive, Internet-only business model which has seen the bank become a top two credit card issuer in Russia in less than 10 years. The bank’s product range includes credit, debit and prepaid cards, deposits, co-branded cards, and agent-based mortgage products. With its special focus on mobile business, the bank offers mobile applications for customers and non-customer alike.

The bank’s five-year strategy has the ambition of becoming a financial marketplace where customers can shop not only for our products, but also for those of our partners.

Traditional ‘brick and mortar’ competitors are not sitting idle though, they are fighting back with competitive deals and their own online banking propositions. In an increasingly saturated Russian financial services market, Tinkoff Bank needs to work hard to innovate the next generation of digital services, reduce costs, win new customers and maintain the loyalty of existing ones.

Simultaneously, Tinkoff must rigorously monitor risk. A growing appetite among Russian consumers for credit services paired with turbulence in the domestic economy raises the threat of consumer debt default. To address this issue, Tinkoff needed to accurately calculate credit risk on every prospective borrower— at the point of application —to maintain a high quality, sustainable customer portfolio.

## Committed to Making 100% of Data Available for Decision Making

One of Tinkoff’s goals is to ensure 100% of the bank’s data is available to ad hoc reporting, executive dashboards and predictive analytics. The challenge for Tinkoff is how to rapidly integrate and analyse huge volumes of structured, semi-structured and unstructured big data required for decision making.

The company has historically relied solely on a high performance enterprise data warehouse (EDW) to support reporting and analytics. However, to optimize the utilization of the EDW and acquire the scalability and efficiency



**Tinkoff Bank**

### Overview

TCS Group Holding PLC, including Tinkoff Bank and Tinkoff Insurance, is an innovative provider of online retail financial services operating in Russia through a high-tech branchless platform.

### Business & Technology Challenges

- Maintain rapid growth in online banking services and combat competitive threats
- Minimize business risk in credit portfolio
- Unstructured data growth rapidly consuming capacity of the EDW

### Benefits

- Improved marketing effectiveness, leading in some cases to a 10-fold increase in conversion rates
- Lower business risk through near real-time, transparent view of every customer’s risk profile
- Enabled innovative, customer-centric services to reach the market more quickly
- Increased business productivity, allowing business users to analyze data without developer intervention
- Enabled Tinkoff to launch data pipelines up to five times more quickly than hand-coding Integrated data on a seamlessly scalable basis, including from mobile and Web sources

necessary to support the fast-growing volumes and variety of unstructured data, Tinkoff is developing a Hadoop data lake to augment the EDW. Examples of desired unstructured data include clickstream data from Tinkoff.ru, millions of daily transactions from application logs and external data sets like third-party credit scores.

“The raw data was not accessible for analytics,” Sergey Sotnichenko, head of data warehousing at Tinkoff explains. “As a result, we had to pre-process this semi-structured and unstructured data manually, which took too long, absorbed data warehouse developer resources and diminished agility.”

An example from the marketing front-line puts the problem into sharp focus. Sotnichenko says, “The biggest issue prompting our big data agenda was the need to understand our target audience. Imagine, for example, the marketing department wanted to build a demand-generation campaign for mortgages. First they needed to identify prospects querying the Tinkoff site for mortgage information, and understand prospect profiles. They then need to connect via each prospect’s preferred channel: a banner advertisement or email. We struggled to store, process and act upon the big data sets that held this intelligence.”

## Integrating Big Data For Improved Customer Engagement and Risk Detection

Tinkoff sought to leverage existing Informatica resources to rapidly integrate and manage data as they adopted Hadoop. Tinkoff has standardized on Informatica’s Big Data Management solutions to efficiently integrate any type of data on Hadoop, based on a unified data model. The visual development

environment, reusable business rules and collaboration tools within the Informatica solution help integrate vast volumes (currently 150 terabytes) of semi-structured and unstructured data on Hadoop from the real-time billing platform, mobile applications, the bank’s website and other sources. The solution also easily integrates the traditional structured data from Greenplum and Oracle database sources (currently 30 terabytes) into the Hadoop data lake.

This Informatica solution for big data is transforming the bank’s business and IT operations in the following ways:

- **Faster, more informed decision making:** Tinkoff’s marketing department has experienced a 10-fold increase in conversion rates for certain marketing upsell campaigns based on improved analytical intelligence on the target audience.
- **Mitigated business risk:** The risk management team now relies on a complete, near real-time view of each prospect’s credit risk profile to determine viability for credit before the loan, mortgage or other financial instrument is approved.
- **Accelerated project delivery with lower total cost of ownership:** It recently took just one month for the bank to define project requirements, complete a pilot and provide data for analysis because the graphical development, self-documentation and collaborative features of Informatica Big Data Management Tinkoff to launch production-ready data pipelines up to five times more quickly than hand-coding allows.
- **Reduced technical risk:** The metadata management and lineage tracking capabilities of Informatica Big Data Management solutions allow Tinkoff to proactively access the impact of planned changes to the EDW.

- **Increased business and IT collaboration:** Marketing and Risk teams, for instance, immediately access data via self-service BI tools like SAS Enterprise Guide and SAP Business Objects; they don’t need to engage a developer to help access and interpret complex data structures in Hadoop.
- **Enterprise scalability:** Analysis now can quickly add new data from mobile, web and other unstructured application sources because of Informatica high speed connectivity and pre-built transformations.

## The Informatica Advantage

Tinkoff chose Informatica over other vendors based on the unified nature of the data management platform, proven connectivity, end to end lineage and ease of use. The platform works seamlessly with emerging technologies and strong customer references demonstrated a partnered approach to success. “Informatica helps Tinkoff deliver on the business expectations no matter how fast data volumes grow, how complex the data model is and whichever data sources need to be integrated,” says Sotnichenko. “By harnessing big data across the bank, Tinkoff is now uniquely positioned to target, acquire and retain more customers.”

Sotnichenko is also very positive concerning the advice and support provided by the local Informatica partner, DIS Group. “It was impeccable sales execution,” he says. “A complex pilot project was executed by DIS Group in less than two weeks. Their first line support was immensely valuable during both the implementation and after the production go-live.”

## About Tinkoff Bank

Tinkoff Bank is an innovative provider of online financial services operating in Russia through a high-tech branchless platform. The bank was founded in 2006 by a Russian entrepreneur Oleg Tinkov. The bank's product range includes credit, debit and prepaid cards, deposits, co-branded cards, and agent-based mortgage products. With its special focus on mobile business, the bank offers mobile applications both for its customer base (Mobile Bank) and beyond it (Traffic Fines, MoneyTalk, Card 2 Card instant money transfers).

The bank's five-year strategy has the ambition of becoming a financial supermarket where customers can shop not only for our products, but also for those of our partners.

As at 1 November 2015, the bank was the second largest player in the Russian credit card market, with a market share of 7.7%. As at 1 December 2015, the bank issued over 5.4 m credit cards.

The bank is well capitalised: its CBR N1 total capital ratio stood at 13% as at 1 December 2015. The 9M 2015 IFRS net income of the parent company, TCS Group Holding PLC, which includes Tinkoff Bank and the insurance company Tinkoff Insurance, amounted to RUB 0.9 bn.

In 2013, The Banker magazine, the world's premier banking and finance resource and Financial Times Group member, named Tinkoff Bank the Bank of the Year and the most profitable

bank in Russia. In 2015, Global Finance magazine and Banki.ru portal presented Tinkoff Bank with the Best Internet Retail Bank in Russia award. In 2014 and 2013, Tinkoff mobile bank app was recognised the best by Deloitte, and in 2014, the internet bank of Tinkoff Bank was deemed the most effective in Russia by Markswebb Rank & Report agency. Tinkoff Bank is a member of the deposit insurance system (the system guarantees each depositor of member banks a payout of RUB 1.4 mln on deposits and current accounts, including interest income).

## About the Group

TCS Group Holding PLC is an innovative provider of online retail financial services operating in Russia through a high-tech branchless platform. In order to support its branchless platform, the Group has also developed a "smart courier" network covering almost 600 cities and towns in Russia which allows next day delivery to many customers.

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### Solution

- Informatica Big Data Management integrates any type of data on Hadoop; no specialized coding required to scale performance
- Works with both emerging technologies and traditional data management infrastructures
- Build transformation logic once and adopt new technologies quickly, without rebuilding data pipelines

### Inside the Solution

- Informatica Big Data Management
- Informatica PowerCenter
- Informatica Metadata Manager
- Informatica Business Glossary
- Informatica Global Customer Support



Digital transformation is changing our world. As the leader in enterprise cloud data management, we're prepared to help you intelligently lead the way. To provide you with the foresight to become more agile, realize new growth opportunities or even invent new things. We invite you to explore all that Informatica has to offer—and unleash the power of data to drive your next intelligent disruption. Not just once, but again and again.

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