



Building a Data-Driven, Predictive Business

CHINA CITIC BANK CASE STUDY

AT A GLANCE

With Alpine Miner, CITIC Bank Credit Card Center:

- Reduced end-to-end predictive analytics process from months to days
- Exploited Big Data (5-100 TBs) directly in the warehouse for iterative, in-database predictive analytics
- Built an efficient, collaborative data-driven culture that doesn't require high-priced specialists
- Improved marketing campaign effectiveness 65% model accuracy and efficacy.



COMPANY OVERVIEW

- Part of CITIC Bank founded in 1987
- China's 7th largest lender in terms of assets
- Network of over 400 branches countrywide
- Relationships with 1000 banks in 70 countries around the world.
- A wholly owned subsidiary of China International Trust and Investment (CITIC)

Acknowledged by the industry for their high standards, in November 2010 CITIC was awarded the **"2010 Excellent Competitor in International Banking"** by the China Business Journal.

CITIC Bank is a company recognized for their high standards and advanced service philosophy. In April of 2010, CITIC Bank Credit Card Center set out to create a state-of-the-art analytic environment to support and fuel their fast growing credit card business. Efficiency was one of their top considerations – they wanted an analytic architecture that was fast, flexible, affordable and simple-to-use, all at the same time. Plus, they had the future in mind – they were already a large institution with large data so the ability to scale was mandatory, but they wanted to place themselves at the leading edge. Their vision was to become ultra-modern and data driven—an organization enabled to use any and all of their data to drive business excellence.

They took on a formidable project: to build a comprehensive, centralized credit card data warehouse environment to support an end-to-end analytic environment - everything from operational data to robust predictive analytic applications, all within a few months.

CITIC Bank Credit Card Center was already familiar with predictive analytics and had used conventional products in the past to predict business outcomes and better guide their actions. They knew the potential value that could be achieved through predictive analytics and they wanted to maximize their efficiency to truly leverage all their data for analytic potential. It was a formidable challenge to try to achieve in months what takes most organizations years. But they were focused and ready.

They knew product selection was key to their success. They selected the EMC Greenplum Enterprise Data Cloud (EDC) as their powerful MPP data warehouse platform because it would allow them market-leading power and scalability on commodity hardware. This enabled them to affordably ride the curve of hardware advances as they occur and enjoy the simplicity and flexibility of a private cloud environment within CITIC Bank Credit Card Center. Greenplum provided them with exceptional efficiency for their data warehouse because it provided comprehensive enterprise capabilities. As a result, they didn't need to buy a lot

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By using Alpine Miner on huge volumes of complex business data directly in the data warehouse, CITIC was able to uncover useful information and predictions. With this highly efficient analytic environment they are able to use data fully and collaboratively across the CITIC Bank Credit Card Center. As a result, they are accelerating their growth and competing on the leading edge of business by becoming truly data-driven.

of extra data management. It gave them everything from market leading load performance (10X faster than peer data warehouses) with comprehensive ELT transformation capabilities to enterprise-class high availability/disaster recovery, compression (6:1), and much more.

Co-requisite with the DW project they selected Alpine Miner, the world's first big data predictive analytics software. With Alpine Miner, they were able to create a leading edge environment that could run directly in the database, tapping the full power of their MPP DW platform and eliminating many of the tedious steps that they had experienced with their legacy analytic software.

One of their initial projects was to maximize the number of active credit card customers by better targeting marketing incentives to those most likely to activate. With Alpine Miner they were able to go directly against the data with an intuitive drag-and-drop visualization workflow interface that includes everything – data exploration, data preparation, data conversion, modeling, model validation, model ratings and comparisons, scoring and even publishing and reporting. The business had the power at their fingertips and didn't need to invest in highly-specialized data miners. In just a few days they were able to determine the factors that indicated likelihood to activate and prove the validity of their model. They were also able to isolate the cards that would likely never be activated to reduce wasted marketing spend. The project was a success.

Furthermore, all data analysis and data mining work was fully performed in the database avoiding large-scale data replication and migration of big data which also eliminated leakage and contributed to security and reliability as it supported standardization. They achieved the results they wanted complete within a collaboration-friendly environment including code, input output, data conversion, user documentation and more stored directly in the Alpine Miner libraries in the database.

CITIC Bank Credit Card Center enjoys the benefits of Alpine Miner's multiple algorithm support and massive data modeling against big data analyzing volumes of data ranging from 5 – 100 TBs. In just 9 months they built a comprehensive end-to-end big data predictive analytic environment – one that also serves as their centralized data warehouse complete with ODS and a specialized data mart. It is an enviable analytic environment, nothing less than you'd expect from a prescient, data-driven organization like CITIC.

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“ *It's simply easy to use. With Alpine Miner, our own data experts can build highly accurate predictive models on their own.* **”**

