

GLOBAL FINANCIAL GROUP EARNS MILLIONS IN CREDIT CARD PROFIT

Fortune 300 global financial group

Customer

Fortune 300 global financial group

Industry

Financial Services

Opportunity

- Needs to meet Service Level Agreements (SLAs) 99.995 percent of time
- WAN replication for disaster recovery and load balancing required

Solution Set

BigMemory Max

Key Benefits

- Saved millions of dollars by flagging blacklisted cards faster
- Improved protection for 10GB of data

BLACKLISTED CARDS
identified within SLA for
99.995%
OF
TRANSACTIONS



The Big Challenge:

Radically boost the performance of applications that detect blacklisted cards

A leading credit card company's cards are accepted at millions of merchant locations and more than 845,000 ATMs in more than 185 countries. The company determined that it was failing to meet its one-second SLA for identifying blacklisted credit cards approximately 0.3 percent of the time—which adds up when you're dealing with thousands of transactions every

second. This resulted in blacklisted cards being improperly accepted, costing the company an estimated \$10 million annually. The causes were twofold. First, the company kept its list of seven million blacklisted card numbers and individuals in a disk-bound Oracle® database, which was slow to access. Second, the Java® garbage collector caused extended, unpredictable pauses. Each pause forced the company to "guess" on many transactions, exposing the company to losses.

"Every garbage collection pause was a potential financial disaster."

— Senior Systems Architect

Why BigMemory:

Advanced in-memory data management and low, predictable latency at scale

The company wanted to move its entire list of blacklisted cards and individuals into machine memory to dramatically improve access speed. It considered Oracle® Coherence, but ultimately concluded that only Terracotta BigMemory could deliver advanced in-memory data management as well as extremely low and predictable latency at scale—all without garbage collection pauses or expensive and time-consuming Java tuning. In addition, Terracotta's WAN connector performed flawlessly in replicating its in-memory data sets across global data centers.

The Big Results:

Blacklisted cards identified within SLA for 99.995 percent of transactions; high-value data protected in-memory and millions of dollars saved

Since putting BigMemory live in production, the company meets its SLA more than 99.995 percent of the time. The company's significant store of in-memory blacklist data is protected by BigMemory's persistent storage and fault-tolerant, fast-restartable architecture—so machines coming back online after an outage don't demand a full reload from the database. WAN replication keeps its global data centers in sync, making it easy to redirect traffic from one to another in case of outages or heavy loads. The solution is performing so well that the company plans to power its fraud detection application with BigMemory in the near future.

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