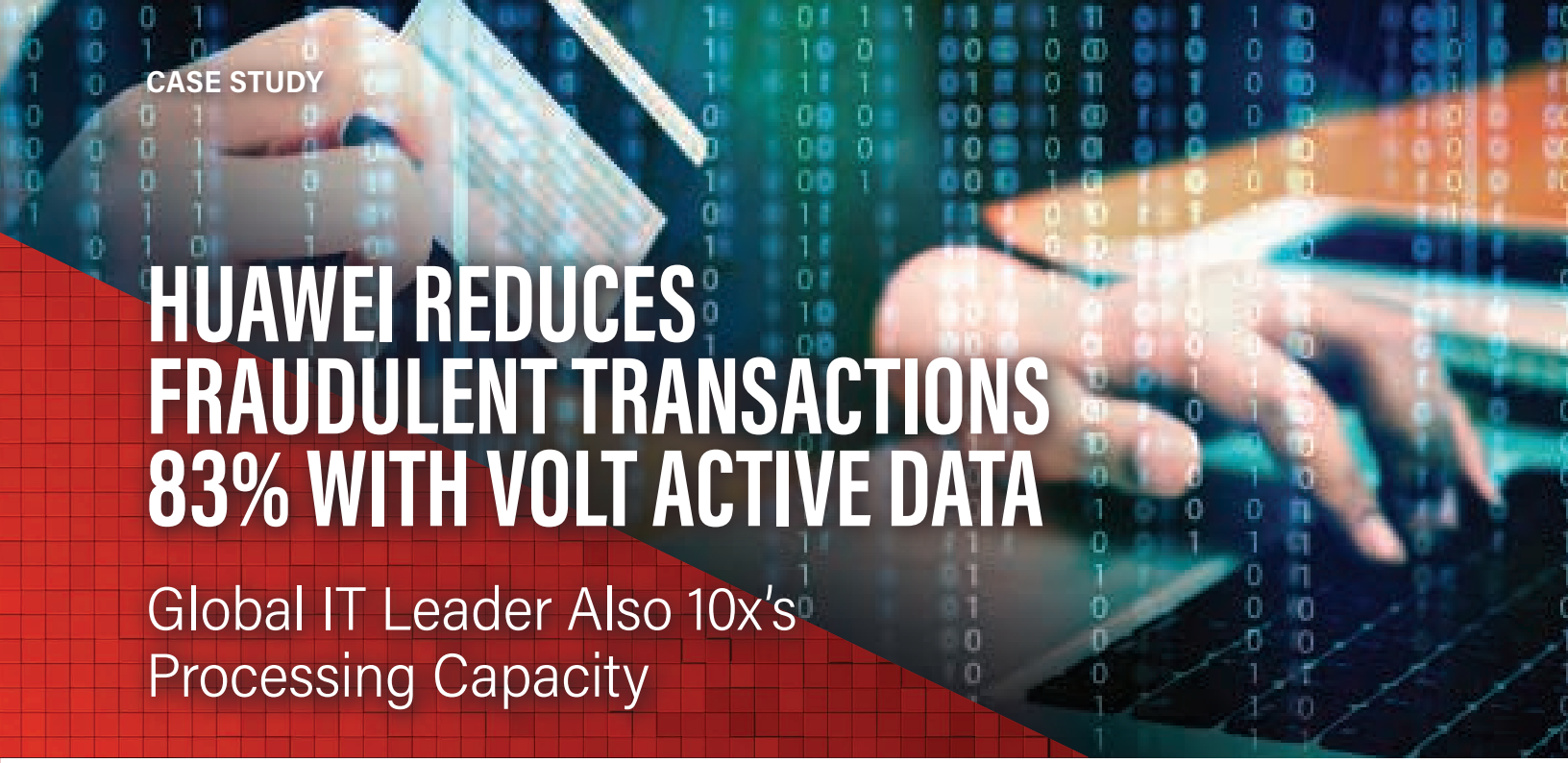

CASE STUDY

HUAWEI REDUCES FRAUDULENT TRANSACTIONS 83% WITH VOLT ACTIVE DATA

Global IT Leader Also 10x's Processing Capacity

A leading global information and communications technology solution provider as well as a consumer electronics giant, Huawei has long been at the forefront of big data and digital transformation. However, the company began to realize it needed to update its database capabilities to be able to keep with the increasing volume and velocity of transactional data. In the end, Huawei found a solution that not just solved its issues but produced a dramatic improvement.

THE CHALLENGE

Huawei's FusionInsight is an enterprise-class distributed Big Data solution and premier analytical platform. Recognizing the value of combining Fast Data with Big Data, Huawei sought a foundational platform for expanding FusionInsight with real-time services.

The main issue was fraud analysis, where financial transactions are analyzed before they are authorized. Every time someone swipes or inserts a card or taps or scans a phone, the database needs to make a very quick decision about whether to authorize or decline the payment. Once an account is known-bad, it's put on a checkable blacklist. The art is catching the fraud on the very first misused payment method. Getting this decision wrong can be expensive because you miss a fraudulent transaction, someone has to eat the cost of the purchase. Conversely, if you identify a legitimate transaction as fraud, the experience for the account-holder is poor.

To accomplish this real-time fraud analysis, Huawei needed a system that could perform hundreds or thousands of queries per financial transaction, applying user-provided logic and rules to gigabytes or terabytes of recent history, blacklists, and other state-based data.

This system would be packaged into the FusionInsight product, so it needed deployment flexibility, manageable cost, and financial-grade security.

THE SOLUTION

Huawei tried many different databases but was having trouble finding one that could support many millions of non-trivial queries per second and generate decision scores in single-digit milliseconds. Volt Active Data was the only system that could achieve this.

Huawei chose Volt Active Data not only for its ability to dramatically reduce current fraud detection latencies but also to automate real-time, in-event fraud detection and prevent millions of dollars in losses in doing so.

Volt Active Data was the clear only choice for Huawei's demanding high-throughput requirements, which range from hundreds of thousands of transactions per second to more than a million per second at peak times.

Specifically, Volt Active Data offered Huawei all of the features they needed in a data platform—ie, features that enabled more powerful analytics with instant responses—including:

- **Low Long-Tail Latency**
- **Operational Robustness**
- **High Throughput**
- **Low Operational Cost**
- **Cloud and Virtualization Friendly**
- **Highly Secure with Robust Auditing Built-In**

At the end of the day, Volt Active Data stood alone.

Traditional RDBMS vendors would have cost more, required more hardware resources, and used multiple-levels of architecture to achieve the same result. NoSQL and other NewSQL systems couldn't offer the query power needed to support the same levels of analysis at the same rates.

HOW IT WORKS

The FusionInsight platform accepts the set of user-provided rules and compiles them into a set of Volt Active Data stored procedures in a Java Jar file. The scoring procedures and dimension data (such as blacklists) are loaded into Volt Active Data and the customer is ready to analyze some fraud.

For every payment authorization, up to hundreds of procedures will be called, each with many SQL queries and different scoring logic. The client then combines the outcome of these procedures and makes a fraud decision, ultimately recording the result in Volt Active Data as well, so the record of that decision can be used for near-future fraud analysis.

The final part of the process is rule-set dynamics. Customers can change the logic in FusionInsight as often as every few minutes, meaning Volt Active Data has to accept and transactionally transition to entirely new logic without impacting load time.

THE RESULTS

With Volt Active Data, Huawei was able to log an 83% reduction in fraudulent transactions and increase its processing capacity by 10x.

Volt Active Data has significantly reduced credit card fraud detection latencies for Huawei, enabling Huawei's customers, including financial services institutions, to implement real-time history queries and credit investigations and build new event marketing services focused on customer value management.

MORE

Read the press release announcing Huawei's choice of Volt Active Data or download the PDF of this case study.

ABOUT VOLT ACTIVE DATA

Volt Active Data enables enterprise-level companies to innovate faster, perform better, and create new revenue streams by unlocking the full value of their 5G data. The only data platform built for real-time, sub-10 millisecond decisioning, we empower companies to re-engineer their latency-dependent solutions to process more data than ever before at a faster pace than ever before, allowing them to not just survive but thrive in the world of 5G, IoT, and whatever comes next. By combining in-memory data storage with predictable low-latency and other key capabilities, we can power BSS/OSS, customer management, and revenue assurance applications that need to act in single-digit milliseconds to drive revenue or prevent revenue loss, without compromising on data accuracy. For more information, visit voltactivedata.com.