

# Banking on SAP HANA\* for fraud management

Computacenter Germany collaborates with Concepts and Solutions (CAS) to implement an Intel® technology-powered SAP HANA\* platform in the fight against financial fraud





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Dorian Szekely, SAP consultant, Computacenter Germany

### **Challenges**

- Fighting fraud. Banks and other financial institutions face an ever-present, constantly evolving, and sophisticated fraud threat that requires advanced analytics and intelligence to detect and prevent.
- Remaining compliant. Legal requirements in Germany mean that the country's credit institutions face severe penalties for failing to address fraud, money laundering, and terrorist financing in all areas of their business.
- Controlling costs. Regulatory requirements on capital adequacy, competing priorities for investment, and complex legacy infrastructure demand careful expenditure on easily integrated, future-proof solutions.

#### **Solutions**

- SAP HANA\*. Developed in collaboration with Intel and powered by the Intel® Xeon® processor E7 v2 family, this real-time business platform enables companies to integrate data-driven intelligence into real-time processes.
- SAP Fraud Management solution. Optimized for the SAP HANA platform, the SAP Fraud Management solution offers enterprise-level fraud detection and prevention across multiple channels, accounts, and business areas.

### **Impact**

- Fraud reduction. According to their internal assessments, clients of Computacenter and CAS have improved their fraud detection capability, uncovered new fraud patterns earlier to prevent their wider dissemination, and reduced false-positive ratios.
- Customer satisfaction. Working together, CAS and Computacenter have enabled financial institutions in Germany to reduce fraud-related financial losses, protect their reputations, keep customers, and remain compliant.
- Business opportunities. As SAP experts, both CAS and Computacenter have seen a steady increase in business opportunities.

### Managing banking fraud at an enterprise level

In the financial services sector, combating fraud is a constant battle. Any weak link in an organization's fraud detection and prevention strategy is quickly exploited. Professional fraudsters are continuously coming up with new and ever-more sophisticated techniques to steal money from the weakest targets, while more opportunistic attacks from insiders as well as outsiders are a constant threat.

The financial damage of a major fraud attack can be severe, but equally important is the reputational damage that can be done. However, enterprise-level fraud detection across multiple accounts, payment types, transaction channels, business units, and service areas requires a huge analytical capability. For most financial institutions, which have multiple, separate IT systems that have grown up over the years, adding this type of vast new computational capability is necessary but challenging.

### A successful relationship

Helping banks and other financial institutions overcome the growing fraud challenge is a key

area of business for Computacenter Germany and CAS. The two bring complementary skills to create a streamlined and successful relationship: IT provisioning, implementation and optimization from Computacenter; with project planning, solution design, and sector expertise from CAS.

Together, the two help financial institutions comply with the German Banking Act (KWG), which is very clear on banks' responsibilities when it comes to fraud, money laundering, and terrorist financing. The KWG has adopted requirements set out in the European CRD IV initiative, and requires credit institutions to operate and update the necessary IT systems so they can identify both business relationships and individual transactions that appear in any way dubious or unusual. The management board is held directly responsible for any neglect that threatens the existence of the organization.

Ralf Verlage, principal consultant for financial services at CAS, sums up the dilemma their clients face. "The banking law has certainly focused attention on the issue, but the financial services industry has long had an interest in minimizing and countering increasingly sophisticated fraud techniques. The difficulty is that



## Earlier, more accurate fraud detection and lower ratios of false positives across the enterprise

it is not the only priority. It's a very competitive market, and many of our customers are looking to innovative IT-enabled services to gain an edge. But there are real constraints on expenditure, not least because of the demands for capital adequacy made on all banks by the global Basel III Accord."

Dorian Szekely, SAP consultant at Computacenter, agrees: "In this environment, any fraud management solution we offer has to meet very tough criteria for effectiveness, price, and ease of implementation and integration."

### The SAP HANA solution

Both companies are accredited SAP members, and offer extensive capabilities in the deployment of SAP HANA platforms. Developed in collaboration with Intel and powered by the Intel Xeon processor E7 v2 family, SAP HANA is an in-memory platform that helps businesses bring transactions and analytics together for smarter and faster business transactions.

Over the past few years, SAP HANA has evolved to become the strategic application platform for SAP applications, and working with SAP HANA has become a significant business area for Computacenter. It has built up a world-class business practice based on consulting on SAP HANA architecture and developing SAP HANA platform strategies for its clients. Its services include running proofs of concept, business case analyses, and implementation and related migration services.

SAP HANA software is optimized to take full advantage of the Intel Xeon processor E7 family. These processors provide a combination of large memory capacity, a large and efficient cache hierarchy, high-core counts, multi-threading, and advanced reliability, availability, and serviceability (RAS) features. The Intel Xeon processor E7 v2 family adds to these advantages by providing up to 50 percent more cores and threads and up to three times the memory capacity and additional RAS features compared to previousgeneration processors. The processors have also been shown to double query performance





on SAP HANA and dramatically increase inmemory data capacity.<sup>2</sup>

### **Enterprise-level fraud management**

Verlage points out the advantages of the platform for financial institutions. "SAP HANA is a real-time business platform that allows users to replace their existing but separate databases for transactions and analytics," he says. "That makes it the ideal platform for running a fraud management solution, since it cuts costs and increases the value of the analysis performed."

He continues: "We usually recommend the SAP Fraud Management solution running on the SAP HANA platform to our clients in financial services, since it enables them to integrate realtime, data-driven intelligence into their fraud prevention strategies. It also creates a unified view across all departments, functional areas and affiliates—all the way down to individual account level. That's a standout capability that very few fraud detection and prevention systems can offer."

Szekely adds: "In our view, the new technology from Intel increases the performance, reliability and availability of SAP HANA architectures. These points are important for our customers who want to migrate mission-critical SAP systems to the new SAP HANA platform. Because of the enhanced data center readiness of SAP HANA platforms, the number of implementation projects we have undertaken has increased significantly."

### **Building and protecting the business**

Running on SAP HANA, the SAP Fraud Management solution provides a central examination and documentation platform for detecting and tracking fraud. It significantly increases fraud detection rates while lowering the ratio of false positives. It enables fraud analysts to uncover previously unseen patterns among large data sets, and to detect new fraud trends as they emerge, thanks to its ability to conduct real-time analysis and simulation using in-memory technologies involving arbitrary data systems and volumes.

Verlage says: "The SAP HANA platform and the SAP Fraud Management solution are increasingly popular among our clients, and we see the positive impact it has on their business. It offers faster and more precise mechanisms for protecting financial institutions and their account-holders. Its advanced analytical capabilities,

### **Spotlight on SAP HANA**

SAP HANA\* is a real-time business platform that enables organizations to integrate data-driven intelligence into real-time processes throughout their business. Developed in collaboration with Intel, this unique inmemory platform is helping businesses bring transactions and analytics together to enable smarter business innovations, faster business processes, and simpler business interactions. With SAP HANA, organizations can integrate smarter, faster processes into targeted areas of their business within weeks, and then extend the open, in-memory platform incrementally and almost without limit.

coupled with the visibility it offers across an entire organization, mean our customers are able to detect fraud much earlier in the cycle, and improve their fraud prevention strategies as a result. It also overcomes the age-old problem of too many false positives. Its huge computational power finally enables financial institutions to get the right balance between protecting themselves with strict controls and not inconveniencing legitimate customers who want easy, straightforward banking."

Both companies agree that working with recognized and trusted names like SAP and Intel helps reassure customers. The bigger advantage, however, is often to be found in the reciprocal relationship between software and hardware engineers and consultants working on the front line of implementation.

Szekely concludes: "Our SAP HANA expertise is certainly enabling us to evolve our business in Germany and beyond. Our offerings around SAP HANA technology consulting have helped us increase service revenue and supply-chain revenue, particularly among the financial sector with CAS. That SAP HANA is powered by Intel—and that both companies have a robust, reliable, and exciting road map in place—gives us extra confidence in the future of this area of our business."

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<sup>&</sup>lt;sup>1</sup> On a 4-socket natively-connected platform: Intel® Xeon® processor E7 family supports 64DIMMS, max memory per DIMM of 32GB RDIMM; the Intel® Xeon® processor E7 v2 family supports 96DIMMs, max memory per DIMM of 64GB LRDIMM. This enables a 3X increase in memory.

<sup>&</sup>lt;sup>2</sup> Source: Intel internal measurements November 2013. Configurations: Baseline 1.0x: Intel® E7505 Chipset using four Intel® Xeon® processors E7-4870 (4P/10C/20T, 2.4GHz) with 256GB DDR3-1066 memory scoring 110,061 queries per hour. Source: Intel Technical Report #1347. New Generation 2x: Intel® C606J Chipset using four Intel® Xeon® processors E7-4890 v2 (4P/15C/30T, 2.8GHz) with 512GB DDR3-1333 (running 2:1 VMSE) memory scoring 218,406 queries per hour. Source: Intel Technical Report #1347.