



Kabel Deutschland Uses Lavastorm Analytics' Flexibility to Optimize Revenue Assurance and Fraud Management Processes

# **RESULTS**:

By implementing the Lavastorm Analytics Engine and Lavastorm Transaction Warehouse two years ago, Kabel Deutschland has:

- Achieved quantifiable ROI in less than one year
- Established a continuous RA and Fraud monitoring process that reclaims millions of Euros in lost revenue every year
- Accelerated the detection of fraudulent activity by more than 2000 percent (from more than 24 hours, to near real-time)
- Stabilized five categories of fraud
- Improved customer satisfaction

"Lavastorm delivers professional and economic value. We saw a return on investment in less than a year. I cannot even quantify how many people in our company benefit from it."

Christoph Klein, Senior Vice President Credit Management & Revenue Assurance, Kabel Deutschland

# **CUSTOMER PROFILE**

Kabel Deutschland (KD) is Germany's largest cable operator, offering approximately 8.5 million customers a full range of TV, broadband and mobile Internet, and both fixed-line and mobile phone services.

KD has a reputation for efficiency and innovation. It has shown a capability for consistently strengthening both its financial stability and quality and range of advanced, high-quality services. Hence, the company was awarded Germany's Best Internet Provider in 2011, by the German Institute for Service Quality (DISQ).

# SITUATION

As is customary in the communications industry, alongside KD's steady growth, the risk of exposure to costly fraudulent customer activity also grew. KD's revenue assurance (RA) teams were trying to manage the volume of data and analysis required to mitigate this risk using Excel and SQL queries. Additionally, fraudsters are always employing new tactics, putting pressure on KD to both automate and accelerate processes and continuously test new quality checks and query billing systems in real-time.

Improving RA and fraud management (FM) processes was crucial, but KD also needed to maintain its business agility.

"We knew RA and FM were losing us money," said Christoph Klein, Senior Vice President Credit Management & Revenue Assurance, Kabel Deutschland. "We had a roadmap to allay this, but we did not want whatever solution we chose at the beginning to prevent us from going after additional fraud areas or modifying our processes as our business changed."

After a rigorous proof of concept and selection process, KD decided that Lavastorm's solutions would give them the flexibility and support they needed:

"We knew exactly what we were looking for," said Klein. "Other tools we tried were highly inflexible, and subsequent modifications were not possible. At that point we stopped the process and talked to Lavastorm."



## SOLUTION

Kabel Deutschland selected the Lavastorm Analytic Engine (LAE), and the Lavastorm Transaction Warehouse (LTW) — both part of the Lavastorm Analytics Platform — to address their challenges.

The RA team first used the LAE's flexibility to test their fraud theories:

"Lavastorm allows us to locate potential fraud by identifying areas where things like an abnormal amount of usage, or behavior patterns that don't look 'human' or 'normal' are occurring," said Klein. "Once we know it is worth monitoring, the tool makes it easy to set up a new report based on how that piece of fraud works."

KD then used the LTW to build pre-defined alarms and produce automatic reports monitoring five categories of fraud. They automatically scan large amounts of call data records (CDR), MAC details, and other key metrics against thresholds to alert teams in real-time to follow up on fraud instances.

The RA team also uses the LAE to continually audit and optimize the processes running in the LTW. "We use the LAE to check the implementation of our fraud alerts constantly," said Klein: "As CDRs are produced, we compare the live system with the scheduled solution to see where processes to mitigate fraud might not be done in a standard way."

The LAE's flexibility also lets the RA team build ad-hoc analytics to close further gaps in the company's revenue stream.

"Our finance colleagues routinely ask us to analyze our current adjustment processes" adds Klein. "They will give us the data, explain the process, and we can analyze it very easily to tell them whether it is accurate. So they can understand that any process adjustment has been done accurately."



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# BENEFITS

## Rapid ROI

Kabel Deutschland saw a return on its investment in less than one year, and has experienced numerous other benefits since implementing the LAE and LTW.

### **Reduction of Fraud-based Revenue Losses**

KD has stabilized five categories of fraud, and significantly reduced losses from fraudulent activity: "We have a good understanding of the average damage fraud does, and we know the damage we have avoided," said Klein. "We have reduced losses to a single digit million Euro amount per year."

#### Less Bill Shock and Better Customer Experience

The LTW and LAE continuously monitor key processes and enable KD to proactively serve customers. Says Klein: "For one example, we saw that a customer's call volume increased significantly. We called the customer and it turned out that a new exchange student had moved in and was calling his family and friends at home a lot. We were then able to control the spendings for the customer."

### **Real-time Response**

"There used to be at least a 24 hour delay to detect fraud. Now it is near real-time," said Klein.

Ad-hoc analysis and continuous bill query quality checks have also been important for KD: "This is a big USP for Lavastorm. We can analyze new theories or questions on the fly and easily translate them into a persistent process in the LTW. It is especially useful for us as the analytic graph for particular processes, like billing for new data service packages, is very complex. With Lavastorm, we can carry out quality checks on every single step, which is very complicated and time consuming in SQL."

### Improved Collaboration and Trust

"Cooperation between the finance, network, revenue assurance, and fraud teams has changed significantly," said Klein. "For instance, the insights we can provide now have made the technical department more vigilant. Furthermore, the operational departments appreciate that we can show that systems are up and running and stable, and doing what they should."

"When we started down this path, revenue assurance and fraud management were new to the company. We had virtually no experience, so our goal was getting a tool that was comparatively flexible and would let us be more hands-on to develop the necessary reports. The Lavastorm tool is definitely beneficial for us. It supports our rapidly changing business environment, and if we added a couple of team members and went after a couple of different areas of fraud, I have no doubt we would see similar returns again."

> Christoph Klein, Senior Vice President, Credit Management & Revenue Assurance, Kabel Deutschland