

CASE STUDY

# Online Ticketing Company Reduces Fraud and Chargebacks

# A Leading Online Ticketing Company Reduces Online Ticketing Fraud while Increasing Sales

The company is one of the leading online ticket sales companies in Brazil. It allows its customers to find and buy tickets of the best entertainment events from concerts to university parties. The ticketing company lists hundred of events and processes thousands of transactions every month on its site. Along with web, the users can register and access the marketplace through the mobile application available from Apple and Google Play stores.

## Challenges

With their growth in ticket sales, the company witnessed several challenges from newly registered users. The top priority issues were:

1. Chargebacks for transactions paid using stolen credit cards
2. Chargebacks from scalpers reselling fraudulent tickets
3. Difficulty in manually reviewing ticket sales that often happen very close to the event start time (ranging from 4 to 24 hours)

The goals set for Simility were:

1. Proactively detect accounts leading to chargebacks
2. Extend ticket sale window to right until the event's start time
3. Automate decision making to ensure no delay in ticket sales due to manual review

## Challenges

- Fraudulent account signups
- Chargebacks by scalpers
- Early closure of ticket sales

## Solutions

- Simility Device Recon
- Machine Learning
- CPF Data Integration

## Benefits

- 90% reduction in chargebacks
- 17% reduction in good transaction rejection
- Extended sales window until event time



## Solution

Simility recommended a multi-prong approach to solve the company's issues:

### Rules Based on Historical Data Analysis

Simility's Data Scientists worked with the ticketing company's staff to write rules based on historical fraud data in addition to their already available rules. After reviewing the data, the rules were tuned to catch all historical fraud with Simility's models. This ensured that the ticketing company's investments were protected and carried forward into the new solution. In addition, Simility's Auto Decision templates were used to obviate the need for unnecessary manual reviews.

### Device Recon

Simility's proprietary Device Recon technology was deployed to ensure that every device coming to the site could be accurately fingerprinted. By doing so, repeat fraudulent users could be identified very easily. Additionally, all other related device activities were made available to the fraud analysts for easy review.

### Custom Feeds

The company wanted to integrate CPF (Cadastro de Pessoa Física) information into the fraud detection models. The CPF is the Brazilian Taxpayer Registry database, which stores information of its registered citizens. Simility was able to integrate the CPF data seamlessly and write custom rules combining that CPF data with other transaction information, thereby enhancing the overall fraud catch rate.

### Machine Learning

Simility also included Machine Learning models customized to the company's environment to further enhance the performance of the various rules and feeds. The Machine Learning models allowed the system to gather meaningful insights and catch some of the fraudulent transactions that are more challenging to detect.



## Results

Using state of the art technology, Simility was able to meet and exceed the ticketing company's fraud prevention goals. Here are some of the key outcomes:

1. **Reduce Chargebacks:** Chargebacks were reduced by 8X , from 2.4% to 0.3%.
2. **Reduce False Positives:** False positives were reduced by 17%, providing good customers with a significantly better purchasing experience. This was mainly attributed to the improved accuracy from the Machine Learning models.
3. **Extended Sale Period:** Ticket sales were extended right up until the time of the event, since more than 50% of transactions were being processed through Simility's auto-decisions, which did not require manual reviews.
4. **Improved Analyst Efficiency:** Simility's fraud queue capabilities required manual reviews only for high-risk transactions, significantly eliminating a lot of time that was being spent on low-risk, low-reward activities.



**About us:** Simility transforms fraud prevention with a versatile platform that combines the best of human analysis and machine learning. To learn more, please visit [Simility.com](https://simility.com)

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