

Case Study: Communications

Real-time, In-store Fraud Detection Saves Money, Improves Customer Experiences

Cognizant automates manual scoring process, approving or denying contract applications in less than one second.

Offering a free or subsidized phone to subscribers who sign up for a multi-year plan helps mobile operators win new business. But when fraudsters sign up just to get the phone – with no intention of paying their bills – losses add up.

For our client, a leading telecommunications provider operating in more than 20 countries, losses from subscriber fraud amounted to tens of millions of dollars annually. To detect fraud, the company's fraud agents manually checked each application against credit agency databases and cloud services. However, data-entry errors sometimes led to inaccurate assessments that approved fraudsters for phones while denying credit-worthy customers. What's more, the process typically took about a day, which meant approved customers had to make a second trip to the store to get their handsets. Automating the fraud assessment process would therefore reduce loss while also improving the customer experience.

At a glance

A multinational mobile operator wanted to reduce losses from fraudulent in-store applications submitted solely to receive free or discounted handsets.

We built a cloud-native, microservices-based application, which integrates with an external credit agency and other services, for real-time fraud assessment at the point of sale.

Outcomes

- Customer experience improved – 90% of approvals take less than one second
- The new fraud detection system helped our client to reduce number of fraudulent transactions enabling them to save approximately AUD 30 Million
- The scalable, cloud-native application currently processes 2,500 transactions a week but can scale up to 70,000 a week

Cognizant Solution

The client engaged us to automate the fraud detection process, building a real-time fraud risk assessment solution for store sales staff. The agent simply enters the applicant's identification information in the portal. Within one second, the application retrieves data from multiple external data sources and applies business rules to approve or deny the application.

To build the cloud-native application, we formed a nine-person pod (self-contained team), including our developers, our client's developers and an agile coach. Built on the Pivotal Cloud Foundry (PCF) platform, the application consists of microservices that communicate with data sources via APIs. In phase one, we integrated with a leading credit agency's decision engine. In phase two and three, we added microservices that check the SAS Credit Scoring and integrated Vlocity in our client's CRM application, which enables automatic fraud detection for online orders.

We worked in pairs with the client's developers to give them first-hand experience with new ways of working, including minimum viable product (MVP), iterative delivery and regular validation with business stakeholders. To accelerate delivery of high-quality code, we used agile techniques like test driven development (TDD) and continuous integration and continuous delivery (CI/CD).

Cognizant Digital Engineering Communities

We source talent for pods from our communities of world-class talent from all over the globe with the specific expertise needed to meet each client's business and technology goals.

Results

Early results include:

- The new fraud detection system helped our client to reduce number of fraudulent transactions enabling them to save approximately AUD 30 Million
- Improved customer experience. On-the-spot order approval—less than one second for 90% of applications—delights customers by eliminating the need for a return trip to the store.
- High availability. Availability of 99.9% helps avoid long lines in stores. Our client experienced no downtime during deployment.
- The scale to accommodate business growth. The cloud-native design allows the application to scale up or down automatically based on volume. Currently the application handles 2,500 transactions a week—and is built to scale up to 70,000 a week. Having reduced fraud, the mobile operator is considering to offer a wide range of handsets in its promotions.

About Cognizant

Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 194 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us [@Cognizant](https://twitter.com/Cognizant).

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