Case Study: Banking

# Real-time account validation reduces fraud for a large bank

## Leading American bank holding company implements an external account validation API and early warning system to reduce fraud losses and increase transaction control.

Our client, one of the largest bank holding companies in the US, provides banking, investment, mortgage, trust and payment services to individuals, businesses, government entities and other financial institutions.

## The challenge

As part of its regular business, the bank allows customers to make payments on certain products, such as loans and credit cards, using their external demand deposit accounts (DDAs). A DDA lets customers withdraw deposited funds at any time, without advance notice, via external accounts from other banks. Checking and savings accounts are commonly used as DDAs. However, anyone who knows the bank account information of others can make transactions using these accounts, which can lead to fraud.

## At a glance

One of the largest bank holding companies in the US wanted to build real-time account validation processes for its external demand deposit accounts, which are external accounts that customers use to make payments on credit cards or loans they have with the bank. Using an external account validation API and an early warning system (EWS), Cognizant helped the bank tackle its fraud losses and add more transaction control for customers. The new solution yields a range of business benefits:

- Validated ~10 million payments via a velocity control function, with a 100% success rate
- Detected 53% of ~1 million external accounts as needing further validation using the EWS
- Validated ~7.5 million payments via the EWS

Because the company's external accounts were not being validated as customers made payments, the bank amassed fraud losses of around $3.3 million per year. There were also no limits on the number of payments customers could make in a given period. To reduce fraud losses and control the transactions made with external accounts, the bank needed to implement an external validation solution.

Our client decided to build a real-time validation capability for external DDAs to support customers making payments on credit cards or loans or when transferring money. The bank turned to Cognizant to implement a solution to address its challenges and goals.

The team outlined project requirements for the implementation:

- Build an external account validation API using an Early Warning System (EWS)
- Enable bank customers to manage (view/add/delete) external DDAs
- Build a secondary validation system using microdeposits while storing validated external DDAs, including notifications and alerts
- Enable constraints to limit the number of customer payments in a given period

## The approach

The two-phased project began with primary validation of accounts using an EWS and secondary validation using microdeposits. Real-time validation and EWS services allow the bank to exchange information between organizations to prevent and combat fraud. The EWS also tracks activities such as check and bank fraud, forgery, check kiting, check alteration and counterfeiting. The system shares information with the bank about a potential customer's risk and screens some customers for prior history of fraud, account abuse, forgery, counterfeiting, check alterations, paperhanging, check kiting and identity verification.

With the EWS validation process the bank can ensure, with the utmost security, whether the external account can be added to a customer's profile. It also checks the status of the account each time, prior to any payment being made.

In the second phase, we implemented validation using microdeposits. In this scenario, if a customer is not satisfied with their initial EWS validation's rejection, the system prompts the customer to opt for additional validation using microdeposits, which allows them to continue adding the account. During microdeposit validation, two different transactions with different amounts of less than a dollar are debited to validate the DDA.

In addition to real-time validation, our solution includes the following features:

### Velocity control

- Restricts external account customer transactions by limiting the number of transactions, and their maximum dollar amount, that can be made from desktop and mobile devices for added security
- Processes payments only after both velocity validation and EWS validation of account status are completed

### Pluggable UI

- Built as a standalone React UI that can be plugged to any other LOB, this capability integrates real-time validation of external accounts
- Includes two standalone Restful services—external account validation API and microdeposit API

### Reusable API

- Verifies whether the account is active using the Spring Boot Wrapper API we developed over the EWS
- Other LOBs can use this API, which is currently being used by Make a Payment, Economic Impact Payments (EIP) and Global Treasury Management LOBs

### EIP—stimulus check validation

- Allows customers and non-customers to cash COVID-19 stimulus checks by walking into any branch

## Business outcomes

Real-time validation helps our client identify potentially fraudulent accounts and significantly reduce fraud losses. The single external validation API can be used by other LOBs as a foundation for different use cases, helping the bank reduce development costs and time to market. We also tailored the API to address our client's unplanned and immediate COVID-19-related requirement to cash stimulus checks for customers and non-customers. Per the defined use case, we delivered this capability to production within two weeks. Our client was pleased with the outcome of this project and the positive social impact it had.

In the span of 12 months following the implementation, the system delivered these key business benefits:

- Validated approximately 10 million payments via a velocity control function, with a 100% success rate
- Detected 53% of approximately 1 million external accounts as needing further validation using the EWS
- Validated approximately 7.5 million payments using the EWS, of which approximately 750,000 were rejected, allowing the client to identify fraudulent transactions

### 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 185 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.


Cognizant

**World Headquarters**
500 Frank W. Burr Blvd.
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

**European Headquarters**
1 Kingdom Street
Paddington Central
London W2 6BD England
Phone: +44 (0) 20 7297 7600
Fax: +44 (0) 20 7121 0102

**India Operations Headquarters**
#5/535 Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060

**APAC Headquarters**
1 Changi Business Park Crescent,
Plaza 8@CBP # 07-04/05/06,
Tower A, Singapore 486025
Phone: + 65 6812 4051
Fax: + 65 6324 4051





C572217