



WHITE PAPER | JUNE 2020

---

# Investigating Fraud Transaction Disputes Using Automation

## Introduction

The banking industry is losing billions of dollars per year to fraud<sup>1</sup>. This is compounded by new trends in friendly fraud and increasing costs and complexity to investigate cardholder fraud claims.

### **Fraud transaction disputes initiated by cardholders currently result in:**

- Increasingly complex manual investigations into true fraud factors such as account takeovers.
- Preventable losses due to “friendly fraud” where a cardholder is not accurately or honestly participating in the process.
- Losses due to consumer regulatory protection under Regulations E and Z, which put immense pressure on issuers to quickly research and resolve disputes.
- Ongoing losses due to an inability to provide investigation results to fraud detection systems for analysis and correction in future rule development.
- A costly “arms race” between issuers and merchants over performing an investigation.

### **Read on to discover:**

- How fraud trends are changing and becoming more sophisticated.
- Why cardholders are putting increased pressure and causing more losses to issuers.
- How regulations are struggling to keep up with changes in the industry.
- The effects issuer chargebacks have on merchants and how it ends up negatively impacting issuers.
- A success story from an issuer who envisioned a better solution to industry problems by deploying Quavo’s ARIA (Automated Reasonable Investigation Agent), a fraud investigation solution.
- How Quavo’s ARIA solution works and why it is innovative in the industry.
- Actions an issuer can take now to combat rising losses from cardholder fraud disputes.

## Fraudsters are evolving with technology

**Card skimming technology has become pervasive among fraudsters.** They can be installed in a matter of seconds<sup>2</sup> and can produce up to 100 sets of counterfeit data per day<sup>3</sup>. That's a name, account number and expiration date. Forget about the EMV chips that were supposed to save the day. Fraudsters are taking this information online to enrich it, take accounts over and obtain goods without the cardholder's awareness until it's too late. When a cardholder calls to dispute a charge, how can an investigator tell which online transaction is legitimate and which one isn't, or which one came from a counterfeit card and which one did not?

**Issuers are going online, and fraudsters are finding more ways to exploit accounts.**

Issuers are under increasing pressure to offer online services to change addresses, order statements, update email addresses and other contact information, and they're releasing new features at an unprecedented rate. As a result, account takeovers are on the rise<sup>4</sup>. Once an account is taken over, a card's billing address can be changed. This is a key piece of data that online merchants and issuers use to prevent shipment of goods. Often a cardholder notices far too late to stop shipment and has a lot of protection, placing the loss with the issuer that approved the transaction. Dispute investigators are expected to examine more data points than ever to determine if true fraud occurred when the cardholder reports the transaction. They can't keep up with the volume and types of complex attacks that are occurring.





## Cardholders are causing additional problems

**Off shoring and increased online/automated tools are negating issuer attempts to discover deception from cardholders.** When a cardholder calls to dispute a transaction claiming that they do not recognize it, the issuer must perform a reasonable investigation. With busy call centers, online dispute tools and automated phone systems, back office dispute staff are feeling less equipped than ever to perform this investigation. Knowing what information needs to be collected up front and how to investigate the case requires a lot of training and is inconsistent at best. If the customer is deceiving the issuer, there is a large burden of proof before they can be found liable for a transaction. This forces issuers to choose between being viewed as noncompliant or taking more losses than they feel they should.

**Friendly fraud now represents a large majority of chargebacks to merchants.** A recent study shows that 77% of fraud chargebacks are not actual fraud<sup>7</sup>. No matter who your cardholder is or how valuable their relationship is to your organization, you want to trust that their claim is legitimate. In addition, it takes a lot of research and proof to deny a cardholder for friendly fraud. Too often, front office staff classify a merchant dispute as fraudulent to appease cardholders. Back office workers frequently pay fraud cases that do not meet a rigorous burden of proof for denial. This leaves issuers with a huge bill even if the customer is not misrepresenting themselves that something happened.

**Trial merchants and online scams are causing consumers to attempt recovery through their issuer.** There are any number of online merchants that will offer cardholders opportunities they will later regret signing up for. Trial merchants, digital goods and home business opportunities are just a few of the latest trends to get cardholders to part with their hard-earned money. When they later come to regret their purchase or have difficulty cancelling a subscription, they often come to the issuer claiming fraud. In truth, they have been defrauded, but the issuer is not liable. Back office investigators are trained to look for these merchants, but many charges slip through sundry loss payouts and overwhelming volumes of cases. The issuer is not liable for these types of disputes, but very often ends up paying for them either in losses or time wasted in an investigation.



## Regulations are not keeping up with the industry

**Bank accounts are becoming more disposable.** The average American has an active bank account with more than one bank<sup>5</sup>. Regulation E requires a provisional credit be provided within 10 days of “written” notification of a dispute, which includes online filing. This provisional credit can be reversed if the cardholder is found liable for the transaction, either through an investigation or information obtained from the merchant in a representment. Unfortunately, there is no protection from a cardholder initiating a dispute, taking the credit

and moving on to another bank, leaving the issuer with a loss as they try to reverse a credit that was supposed to be provisional. The law was written at a time when most Americans had only one banking relationship and valued it a great deal. Today, the landscape has changed, but the law hasn’t. This has put increasing pressure on issuers to perform an investigation within ten days, not the 45-90 that the law was intended to provide.

### **Banking products are becoming more pervasive.**

It’s easy to walk into a drug store and buy a prepaid card or sign up for a debit card online. What happens when that account becomes compromised? These new products are all backed by deposit accounts with the same protections as a regular checking account. They seem low risk to the underlying bank because they require some sort of initial funding from the cardholder. Regulation E’s tight provisional credit timeline provides opportunity for a fraudster who takes an account over to purchase goods, dispute the charge, get a provisional credit, withdraw it as cash and run off with both the customer and bank’s funds, relying almost entirely on customer due diligence to spot a potential issue.

### **ATM misdisbursement disputes have become “easy money” for cardholders and fraudsters.**

There are hundreds of thousands of ATMs in the US alone. If a cardholder withdraws money and claims they didn’t get the right amount of cash, issuers have

precious little time to determine if the ATM actually made an error or the cardholder is attempting to defraud the bank, or worse, the account was compromised. Losses on these types of disputes is on the rise and the law provides an issuer little protection and not enough time to issue a chargeback and review the response.



## Merchants are struggling. And Issuers are suffering as a result

**Issuers are under pressure to spend less human capital to investigate disputes.** Most issuers employ a large back office staff to research disputes and want to reduce or maintain them in the face of ever-increasing volume. A seemingly easy way to reduce the amount of staff required is to issue a chargeback immediately, wait for a representment from the merchant and investigate when more evidence is available one way or another. While this does reduce investigation time, it lengthens the dispute cycle, which is a huge cardholder dissatisfier. Worse, the issuer's first real rebuttal is now the costly pre-arbitration stage, causing arbitration case volume to increase. This increases interchange and research costs for everyone. An automated investigation beforehand can save a huge amount in "merchant research" fees through chargebacks.

**Merchants are automating, too.** Merchants are employing tools to respond to chargebacks with little or no research on their end if they know an issuer won't pursue pre-arbitration. Issuers have the data to perform an automated investigation and stop this costly arms race. A fraud investigator can correctly decision a case with a high degree of certainty. But they are usually looking almost solely at issuer data. What if this could be automated to a high degree?





## One Issuer's journey to adapt to the industry and regulation

Quavo partnered with one of the largest Visa issuers in the United States when ARIA was first conceived. The company's CEO enlisted the help of Quavo's fraud and disputes experts to combat rising losses and expenses incurred from investigating disputes.

"I want a system that makes the correct decision for the cardholder using every piece of data that an investigator would use. I want to take care of them immediately, consistently and in full compliance of the law", he said in a kickoff meeting in late 2018. He was intimately aware of how customers were falling victim to fraud and how his company was at risk of taking losses from their own customers, merchants and fraudsters and was organizing his workforce to combat the issue. He was also aware that human investigators are inconsistent, expensive and slow compared to a fully automated system.

"I want a system that makes the correct decision for the cardholder using every piece of data that an investigator would use. I want to take care of them immediately, consistently and in full compliance of the law."

**CEO** of one of the largest Visa issuers in the US

Quavo had their own industry experience stemming from building automated dispute systems for even larger issuers. These systems automated tasks such as chargebacks and fraud reporting, but the investigations were still primarily conducted by humans. The combination of Quavo's extensive experience in the disputes industry around automation and the CEO's vision and drive to change the way his company worked quickly produced ARIA, the Automated Reasonable Investigation Agent.

In its initial release, ARIA was making a pay or deny decision on 70% of the cardholder fraud disputes it received.

Initially, ARIA's decisions were validated in tandem with a human investigator, who confirmed that the engine made the correct decision, or if it didn't, what may have caused the issue. Quavo worked closely with auditors to make sure that regulations were being upheld. Consumer protection was at the forefront of every decision.

The beauty of ARIA is that it continually gets better with Quavo's iterative design and release approach and is expected to exceed 90% automated investigation. Improvements made will be consistently applied to new cases. Contrast that with the average issuer's back office staff, where quality assurance, training and correction is done on an individual level and requires constant upkeep. With ARIA, this issuer's cardholders and shareholders are winning and driving innovation in an industry that desperately needs it.

## How does ARIA perform a reasonable investigation automatically?

The success behind ARIA is defined by three major decisions:

1. **Likelihood of true fraud** – Often, cardholders notice charges on their statement or online banking portal and have legitimately experienced fraud. Sometimes their card is stolen or lost. In cases where fraud actually occurred, ARIA provides a high confidence by evaluating many factors such as account takeover attempts or other signatures commonly found in true fraud scenarios.

### ARIA investigates factors including:

<b>Drained Balance</b>	Most fraudsters will not leave a balance on the account. ARIA looks at balance history and determines if the current account balance does not fit historical patterns.
<b>Geovariance</b>	Fraudulent transactions often occur alongside legitimate ones. What if the distance between disputed transactions and legitimate ones are impossible to travel? ARIA can detect true fraud using this approach.
<b>Test Transactions</b>	Fraudsters often test that a card is active by performing a small test transaction. ARIA can automatically determine if such a transaction is present and likely not performed by the cardholder.
<b>ATM Usage</b>	ARIA's ATM usage indicators check behavior before, during and after a dispute to determine if the card and PIN were compromised

ARIA has many more factors for true fraud including account takeover determination.

2. **Likelihood of friendly fraud** – Cardholders may have participated in the incident in any number of ways, even including dishonestly including transactions that are not fraudulent with ones that are or filing an entire dispute when no fraud occurred. ARIA detects friendly fraud by investigating each transaction in question and providing a high confidence of friendly fraud when several factors are present.



### ARIA investigates factors including:

<b>Legitimate Use After Lost</b>	Did a cardholder claim that their card was lost and then conduct legitimate transactions using the same card? ARIA can investigate what happens after the dispute to detect this behavior.
<b>E-Wallet Transactions</b>	Were E-Wallet transactions disputed by the cardholder as fraud? These transactions often require advanced biometrics or special PINs.v
<b>Transaction Velocity</b>	Are transactions disputed that occurred over a long period of time? ARIA has factors that determine the velocity of fraudulent transactions, which in the case of true fraud are often conducted very quickly.
<b>Trial Merchant</b>	Is the cardholder disputing trial merchant transactions as fraud? While they may feel defrauded, these are not subject to the same liability and loss potential as a truly fraudulent transaction. ARIA can find trial merchant transactions.

ARIA has many more factors for friendly fraud including merchant history and data checks.

1. **Overall decision based on confidence of main factors** - In cases where ARIA determines true fraud occurred and friendly fraud did not, the engine will recommend the dispute is paid and the amount taken to loss as a human investigator would. If no true fraud indicators are present, but many friendly fraud indicators are, ARIA will recommend the case be denied and the cardholder reassert their case and provide more details. In some cases where , ARIA supports going to the merchant through a collaboration partner or the chargeback process

Most issuers are making cursory decisions based on data points such as the dollar amount of the transaction vs. the amount of money required to investigate it. ARIA seeks to reduce the cost of an investigation to a low, consistent, predicable amount while still performing the best investigation possible on every transaction.

ARIA is also the industry's only platform that performs an investigation as a human would, weighing the likelihood that actual fraud occurred with the possibility that the cardholder is misrepresenting something. This is the investigation that the law requires if the issuer is going to find the cardholder liable, but before ARIA the industry did it manually, inconsistently and without as much accuracy.

## Actions an issuer can take now

We recommend several actions to prepare for an environment where fraud is evolving and may even include Cardholders, and regulations are struggling to keep up with the pace of change in the industry:

1. **Understand what investigating disputes is costing your organization.** Fraud investigations are complex, time consuming and error prone. Are inconsistent decisions by investigators causing your loss line to be too high? Is your cost of an investigation too high because you spend too much time looking at a dispute or documenting decisions? Are auditors threatening you with fines if you can't consistently interpret the law? For issuers, disputes are not a core part of their business, but they are a large operational expense that can be avoided in many cases.
2. **Investigate fraud detection, too.** Every single true fraud dispute can be traced back to a failure of your fraud detection system or the practices you have in place to prevent fraud. Go upstream and attempt to stop authorizations from happening in the first place. Your cardholders will thank you for it and so will your CFO. Many disputes teams are so far downstream they do not often report back to the people on the front line trying to stop authorizations. By working together, you can begin to understand why fraud detection caused a dispute to occur later.
3. **Investigate your dispute process from the eyes of a cardholder.** For a cardholder that has experienced fraud, you want to take care of them quickly and painlessly. In an environment where the average American has more than one banking relationship, this is extremely important. Where is there friction in the process? What expectations might they have that are unmet?
4. **Think about it where the cardholder is inaccurate or dishonest, too.** A dishonest cardholder might be the person who signed up for the account, or they might be someone that has taken one over that was not detected. How does your system present friction and challenge to such an individual? Understanding how to detect this is the key to reducing losses in a fraud scenario after an authorization was granted.





### Why ARIA?

- Consistent Decisions
- Instant Feedback
- Better Decisions
- Significantly Reduced Costs

## Meet ARIA

ARIA is Quavo's newest solution to an industry desperately in need of more automation than even the best solutions and Issuers have developed to date. Discover how it can change the way issuers are investigating disputes and the benefits that come along with it.

**Consistent Decisions** - Humans are notoriously bad at making consistent decisions. An issuer's Cardholder and business deserve a thorough and consistent dispute investigation every time. Auditors and Compliance demand it. ARIA can deliver.

**Instant Feedback** - Issuers are up against tight timeframes to conduct an investigation and increased pressure to give provisional credit quickly. ARIA finishes a reasonable investigation within minutes of case submission, allowing the issuer to take the next steps many days faster than even the most well-run disputes teams.

**Better Decisions** - Think of the highest dollar, most complex dispute. Consider all of the things that are checked and double checked and the care that goes into the investigation. What if the best research could be applied to every dispute? What if the best knowledge in the industry was available to draw upon? ARIA makes this possible.

**Significantly Reduced Costs** - Taking care of cardholders is the issuer's business. Losing money to fraud, friendly fraud, costly research and audit issues is not. ARIA can help issuers focus on their core business and drive costs down significantly around the disputes process.

A recent study shows that **77%** of fraud chargebacks are not actual fraud.<sup>7</sup>



Quavo is a software development company that was formed from our love of Pega and our passion to contribute to its potential. We implement Pega strategic applications faster, cheaper and with more quality than anyone else on the planet. Quavo is focused primarily on financial services and Pega-based solutions for payment disputes, onboarding and case management. Our Fusion methodology allows customers to benefit from a Quantum Evolution in application development. That's why we created our company name Quavo from our goal of delivering a **Quantum Evolution** to each customer.

#### Sources

- 1 <https://financialregnews.com/banking-industry-suffered-2-2-billion-fraud-losses-2016/>
- 2 <https://www.atmmarketplace.com/articles/card-skimmers-are-targeting-gas-stations-and-older-atms/>
- 3 <https://www.creditcards.com/credit-card-news/skimming-and-spoofing-card-fraud/>
- 4 <https://blog.clear.sale/new-trends-in-account-takeover-fraud>
- 5 <https://www.gobankingrates.com/banking/banks/how-many-bank-accounts-americans-have/>
- 6 <https://www.bloomberg.com/news/articles/2018-02-12/meet-the-fintech-whiz-you-didn-t-even-know-was-your-banker>
- 7 <https://midigator.com/the-year-in-chargebacks-report-2019/>

Copyright © 2020 Quavo All rights reserved. All trademarks, trade names, service marks and logos referenced herein belong to their respective companies. This document is for your informational purposes only. Quavo assumes no responsibility for the accuracy or completeness of the information. To the extent permitted by applicable law, Quavo provides this document "as is" without warranty of any kind, including, without limitation, any implied warranties of merchantability, fitness for a particular purpose, or non-infringement.