

# Delivering Multi-Layered Fraud Prevention

Why it makes sense to use multiple layers of control to maximize conversion and keep fraudsters at bay

Start











# Multiple Layers of Control, for Optimal Performance

At ACI, our focus is on delivering the very best fraud management performance. We strive to enable merchant growth, delivering the optimal balance of conversion and fraud prevention for every customer, while holding down the costs of fraud and chargebacks.

To do this, we deploy multi-layered fraud management capabilities. Multi-layered because no single tool or technique can capture fraud—or withstand fraudsters—as effectively as a number of techniques working together. Our approach is highly flexible and can be tailored by product, sector, channel or geography. It is automated and real-time, with expert support from dedicated risk analysts as an inclusive part of the service.

We work with you to build, monitor and refine your fraud strategies as your experience of fraud changes—and our results speak for themselves.


-  Machine learning
-  Positive profiling
-  Global fraud intelligence
-  Supplementary services
-  Rules
-  Retrospective screening
-  Monitoring and performance analytics
-  Expert risk analysts

## Our KPIs for Merchant Business Empowerment and Risk Management

	ACCEPT	DENY	CHALLENGES	CHARGEBACK
<b>ACI Customer</b>	<b>&gt;96%</b>	<b>0-1%</b>	<b>1-3%</b>	<b>0.04%</b>
<b>Market Average*</b>	<b>73-79%</b>	<b>2-4%</b>	<b>13-20%</b>	<b>0.9%</b>

13-month ACI Retail Client Production Results vs. Market Average\*

\*2019 MRC Global Fraud Survey



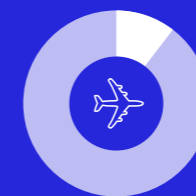
**Talk to us for details of our performance across other vertical sectors**

# 1 Machine Learning Models

Machine learning models detect patterns of fraudulent behavior and play a critical role in reducing false positives and chargebacks. ACI's machine learning capabilities run on the latest technology to ensure accurate and sub-second responses, integrated with the rule platform to further enhance detection accuracy and maintain critical processing performance.

Developed and built by a team of data scientists with extensive payments modeling experience, the scores are constantly monitored and modified to ensure false positive efficiency. Our sector-based models ensure alignment and accuracy against consumer behavior.

Our patented **incremental learning models** maintain performance for longer than traditional models, reducing the need for retraining. Incremental learning models "think for themselves" and make small adjustments on an ongoing basis, ensuring they remain relevant even as fraudsters and genuine consumers change their behaviors.



Trained over six months of 2019 data for one airline customer, our travel sector model delivered a **10% improvement** in fraud prevention and 1.7M euros in additional savings



Our retail sector model has delivered a **50% decrease** in average chargeback rates over the past two years for a major global digital goods company



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## 2 Positive Profiling

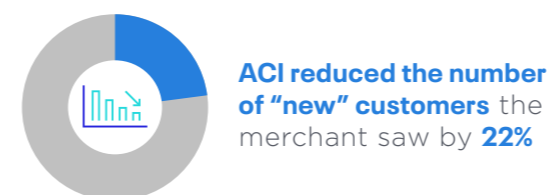
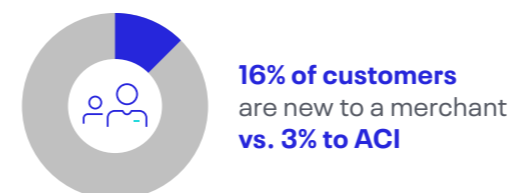
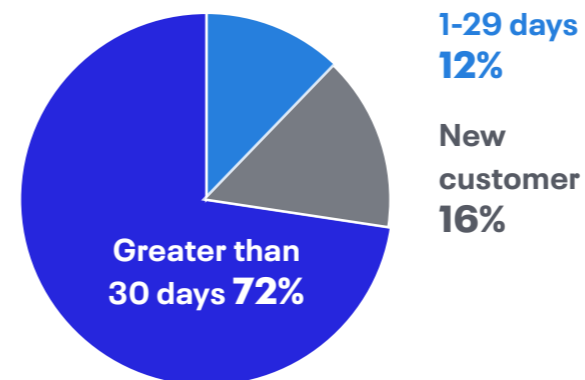
Positive profiling uses consortium data to increase conversion and identify fraud by better understanding customer behavior. Using intelligence from thousands of merchants around the globe, we deliver a 360-degree view of a transaction to convert more revenue safely.

Rich data fields help us sort good customers from bad and further enhance conversion, enabling us to:

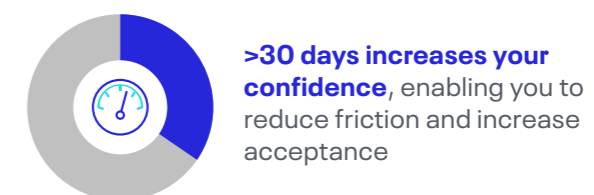
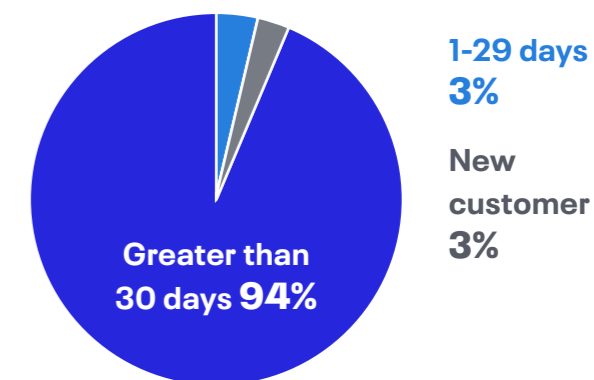
- Check average spend from an email address over a set time period across all customers
- Review links between card history and email history to detect potential account takeover
- Direct customers with loyalty greater than 90 days to benefit from a VIP rule set
- Review high-value transactions using a new card in silent mode for additional control

### Positive Profiling in Action

#### Single Merchant Data



#### ACI Data





### 3 Global Fraud Intelligence

We apply the power of our consortium data to inform our profiling, identify emerging fraud trends, enrich the performance of our machine learning models and enable fast action to prevent fraud loss. Our big data environment provides a central, consolidated data source that combines merchant data with information from partners and other third parties, as well as black-market intelligence and vertical market databases. Instead of taking a siloed approach to fraud, our customers benefit from a consortium that can reduce their exposure to fraud from 30 days (the average chargeback timeline) to minutes or hours.



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## 4 Manual Reviews and Supplementary Services

With connections from our fraud solution to a network of value-added services, you can link quickly and easily to partners to further extend your fraud detection capabilities.

### Services are offered in three categories:

**1. Integrated** – Where a callout is made to a third party from ACI and information returned for use in rules and strategies



**2. Linked** – Giving the merchant the ability to link from the ACI interface to a third-party web page



**3. Outsourced services** – Manual review and chargeback management services, provided by our trusted partner Arvato Financial Solutions, part of the Bertelsmann group



### Examples



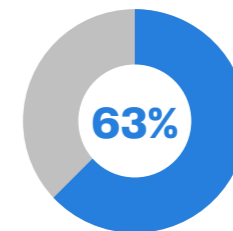
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## 5 Rules

Rules are a fundamental element of every fraud strategy and are used to bring together the multiple layers of ACI's fraud management platform.

ACI enables unlimited rules, from the simplest accept/deny rules to the most sophisticated rulesets, tailored by product, sector, channel or geography. They can be deployed in real time to counter fraud attacks as they happen, or in silent mode to test and enhance fraud strategies. Managed with clear key performance indicator (KPI) metrics, rules contain features, conditions and lists and can build on any data point. Rules can be adjusted via a rule management tool to support product launches and promotions, and even adjusted for time of day if this is indicated by fraud intelligence.



**Rules enhanced by positive profiling delivered a 63% reduction in the number of transactions requiring review for a major department store**

### Building and Adapting a Fraud Strategy — An Example of How it Works

Unlimited Multi-Dimensional Rules	Deny more than three cards per email address in 24 hours and sales channel = web and 3DS = n/a
Machine Learning Score	Deny more than three cards per email address in 24 hours and sales channel = web and 3DS = n/a <b>and Machine Learning Score &gt;700</b>
Decisioning: Custom Lists and "If" Rules	<b>If card = USA then</b> deny more than three cards per email address in 24 hours and sales channel = web and 3DS = n/a <b>and delivery location in (high-risk area list)</b>

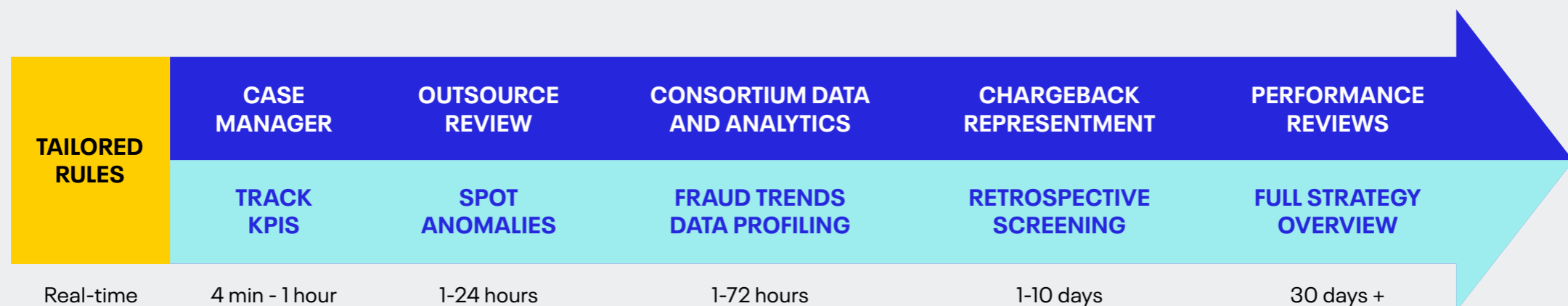
### Enhanced Through Data Intelligence

Profiling: Positive Data Attributes	<b>If card = USA then</b> deny more than three cards per email address in 24 hours and sales channel = web and 3DS = n/a <b>and Machine Learning Score &gt;700 and delivery location in (high-risk area list) and card time on file &lt; three days and email time on file &lt;10 days</b>
Supplementary Services: Third-party Integration	<b>If card = USA then</b> deny more than three cards per email address in 24 hours and sales channel = web and 3DS = n/a <b>and Machine Learning Score &gt;700 and delivery location in (high-risk area list) and card time on file &lt; three days and email time on file &lt;10 days and device = mobile</b>

## 6 Retrospective Screening

Highly flexible to meet merchant needs, our fraud management capabilities support automated decisioning as well as real-time and retrospective screening. Continuous screening enables us to reduce your exposure to fraud from weeks and months—to minutes, hours and days. This enables you to take action based on new fraud information revealed either through your own data or through wider consortium data sources.

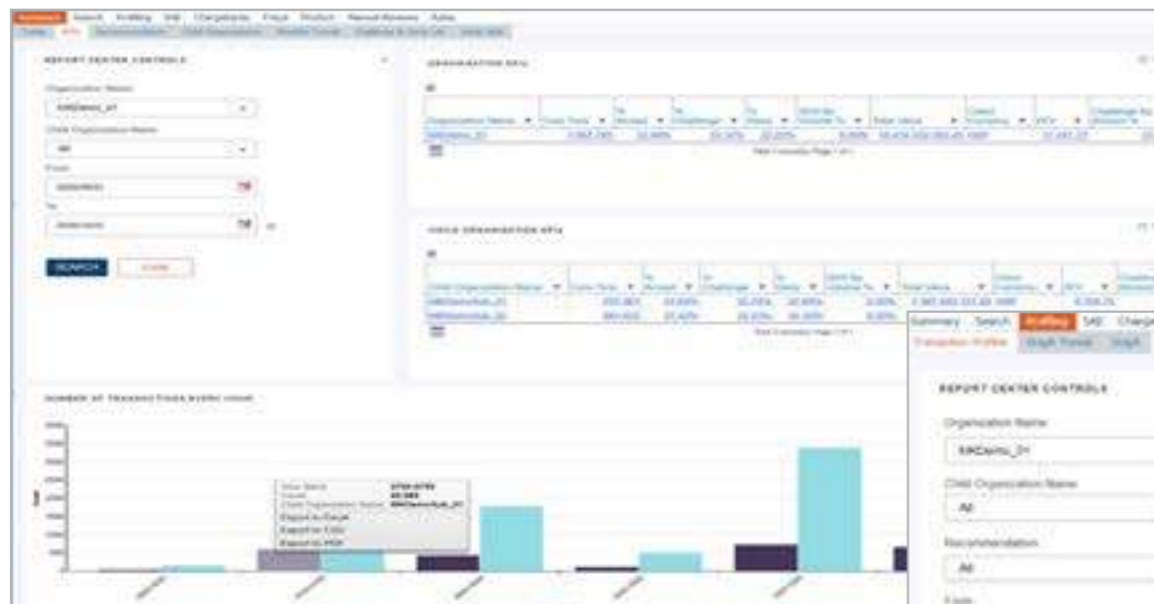
ACI can deploy silent rules to enable potentially high-risk customer profiles to be monitored without impacting real-time decisioning—a critical advantage of maintaining multiple layers of control.





## 7 Self-Service Monitoring and Performance Analytics

Strong fraud detection capabilities are critical—but so, too, is the ability to interrogate, understand and report on your fraud prevention performance. Our intuitive, interactive business intelligence portal gives you a window on your transactions in near-real time to monitor and analyze performance. It delivers insights to inform your marketing and wider business strategies, and provides a view on your KPI metrics to help manage compliance and report on fraud rates.



Fraud KPI Metrics

Profiling Capabilities

REPORT CENTER CONTROLS

PROFILES

ORGANIZATION TRANSACTION PROFILE

Billing State	Card Type	Transaction	Transaction	Group	Group	Accept	Challenge	Decline	Current	Total	% Total	
GA	Mastercard	8,838	0.2	Non-Recording	Non-Recording	3	22.22%	22.22%	24.12%	588	28,862,873.00	0.19%
NY	Mastercard	2,281	0.4	Pre	Current	5	22.22%	22.22%	22.22%	688	22,287,003.00	0.24%
OH	Mastercard	1,988	0.2	Current	Decline	2	22.22%	22.22%	22.22%	588	8,508,792.20	0.19%
VT	Mastercard	894,506	84.8	Decline	Decline	3	22.22%	22.22%	22.22%	588	8,142,185,258.20	22.12%
VA	Mastercard	8,838	0.2	Pre	Pre	3	22.22%	22.22%	22.22%	588	30,380,811.00	0.22%
OH	Mastercard	1,988	0.1	Pre	Pre	3	22.22%	22.22%	22.22%	588	8,508,792.20	0.07%
NC	Mastercard	2,831	0.1	Pre	Decline	3	22.22%	24.12%	22.22%	588	13,038,103.00	0.10%
NY	Mastercard	821,441	22.1	Pre	Pre	3	22.22%	22.22%	22.22%	588	8,098,220,728.17	22.46%
NY	Mastercard	3,372	0.2	Pre	Decline	3	22.22%	24.12%	22.22%	588	17,817,402.00	0.12%
NY	Mastercard	11,136	0.2	Pre	Decline	3	22.22%	22.22%	22.22%	588	81,817,204.80	0.42%



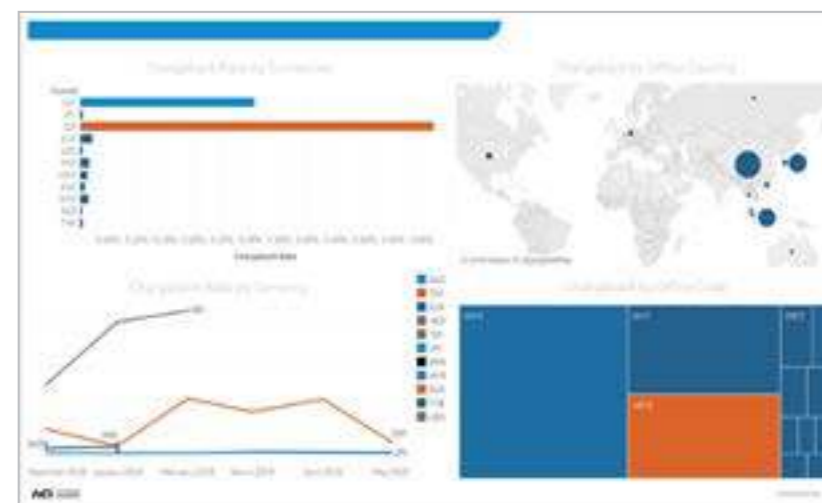
**The ACI Risk Analyst team are complete rock stars and incredibly talented. We would be lost without them."**

Director of Fraud  
Large Enterprise Consumer  
Products Company

## 8 Support From Global Risk Analysts

The best fraud detection demands a combination of advanced tools and technology with human insight and experience. At ACI, a global team of fraud experts supports our merchant customers, advising on—and helping to implement—strategies that maximize good business while detecting and preventing fraud. Because the team is global, we can identify and track emerging frauds around the world and take early action to counter the threat. Analysts with specialist expertise across a range of market sectors provide day-to-day support to our fraud customers with regular risk reviews designed to ensure that strategies are optimized for each merchant.

### Example Service Review for Airline Customer



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## 9 Bringing It All Together

ACI combines a variety of fraud management tools and techniques to deliver best-in-class fraud prevention. The service is flexible and adaptable to individual merchant needs—and delivered in the cloud with comprehensive implementation, project management and consulting support.



// Improved detection rates, extensive customization capabilities, access to global consortium data and expert advice are the key benefits of ACI's fraud prevention solutions. ACI continues to invest aggressively in its fraud prevention solutions to help merchants address emerging and sophisticated fraud threats."

## Part of ACI® Secure eCommerce™

Our fraud management capabilities are available fully integrated with ACI's eCommerce payments gateway to deliver a global eCommerce payments solution that enables merchant growth while reducing the costs of fraud and chargebacks.

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### Do I Need All This if I Have 3DS?

3D Secure (3DS) is a widely used authentication tool—and schemes and most issuers recommend implementation of 3DS 2.0 (as a minimum) to meet SCA requirements for card payments under PSD2.

Yet authenticated fraud remains a significant issue for merchants—making up more than 80% of all fraud for some of ACI's merchant customers. Reliance on 3DS alone is not enough and we recommend that you continue to screen for fraud to protect your customers, keep a firm grasp on fraud rates, qualify for SCA exemptions and avoid scheme fines.

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Visit our website to learn more about  
**ACI's online fraud prevention capabilities** and **ACI Secure eCommerce**.

To discuss your fraud prevention or broader eCommerce payment needs, please contact **merchantpayments@aciworldwide.com**

ACI Worldwide is a global software company that provides mission-critical real-time payment solutions to corporations. Customers use our proven, scalable and secure solutions to process and manage digital payments, enable omni-commerce payments, present and process bill payments, and manage fraud and risk. We combine our global footprint with local presence to drive the real-time digital transformation of payments and commerce.

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#### REFERENCES

All stats sourced from ACI customer data

