

Credit Union Strategy Summit: Session 1

AI at the Forefront: Revolutionizing Fraud Detection and Mitigation

Navigate the future, Empower your Organization

jack henry[™]

07/23/2024



contents

Current State of AI	04
AI Strategy & Principles	07
Understanding the Risks	10
Shaping your Strategy	12
Financial Crimes Defender & AlertCenter	13
Poll	36
Q & A	37

- **about the presenter**

Charlie Wright

Chief Risk Officer

405.834.0464

ctwright@jackhenry.com





The Current State of AI

The Current State of AI

jack henry™

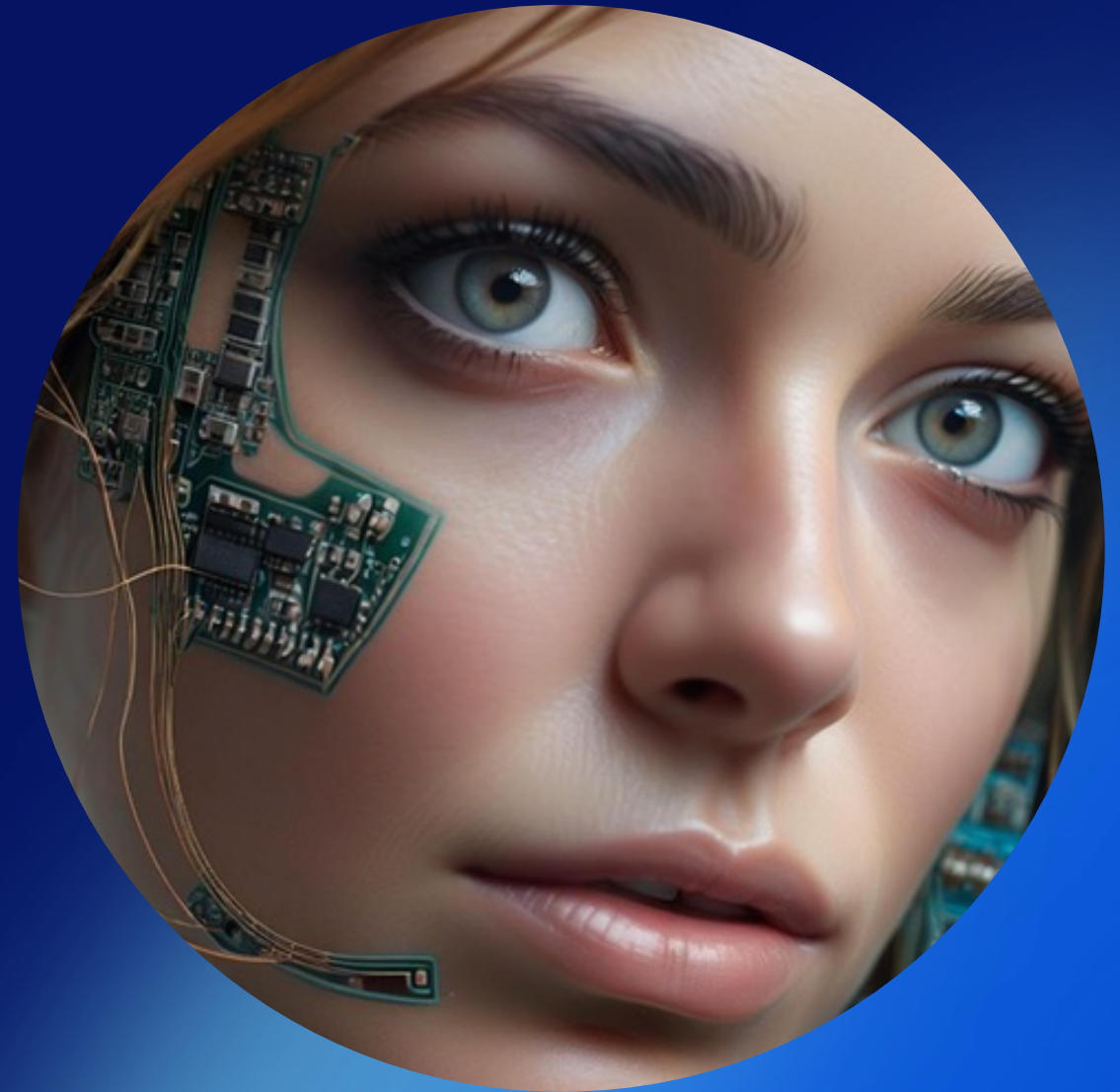


- **Financial Services is at the Forefront of the AI Transformation**

Technology Convergence

Create Your Competitive Advantage

Establish Your Strategy



- **AI Strategy**

1. **Governance and risk management**
2. **Engineering architecture**
3. **Tool and model management**
4. **Data Management**
5. **Use Case Inventory and development**
6. **Third Party Partners**
7. **People, culture and change management**
8. **Communication**



● Establish AI Principles



Fairness and Equality

Promote fair, just, and equitable treatment and avoid discrimination and bias.



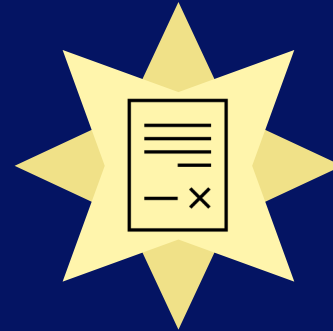
Transparency

AI use cases should be clearly documented and well-explained.



Accountability

People are always in charge with clear methods to report ethical issues or misuse.



Compliance

Compliant with all applicable laws, regulations, and standards.



Privacy and Data Protection

Respect privacy, protect data, allow for clear and informed consent.



Safety and Security

Follow security standards, protect systems, and prevent infrastructure disruption.

- **Have You Defined AI?**

What it is

- **Machine Learning**
 - Computers analyzes existing data and learns to identify patterns
- **Generative AI**
 - Learns statistical patterns and then generates new data based on those patterns
 - Understands speech, solves problems, and reasons
- **Multimodal AI**
 - Capability to use with text, code, audio and video

What it is not

- **Robotic Process Automation**
 - Automates manual, repetitive, and rule-based tasks

- Understand the Risks Associated with Specific Models

Market Fragmented by Functionality

	Google	OpenAI	Microsoft
Free	Gemini	ChatGPT 3.5 ChatGPT - 4o	MS Copilot
Subscription	Gemini 1.0 Pro Gemini 1.5 Pro Gemini 1.0 Ultra	ChatGPT 4.0 ChatGPT Plus	MS Copilot Pro MS for Office 365

- **Use Case Approval Processes**

Organize into four categories of use cases

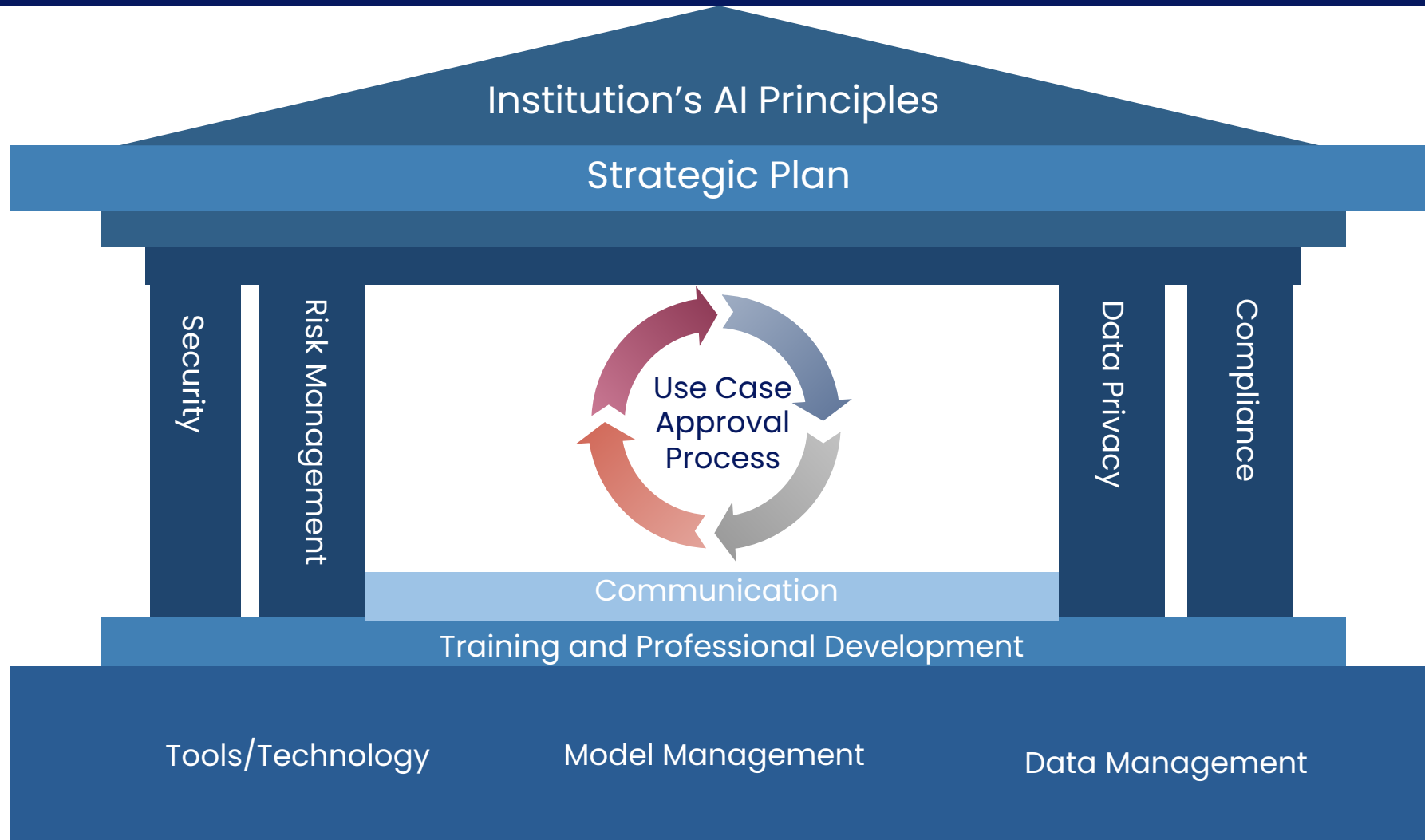
**General
Productivity**

**Business
Use**

**Software
Development**

**Third Party
Integration**

- What is Your Institution's AI Strategy Framework?



The background features three overlapping circles of a lighter blue color, arranged horizontally. The central circle is the largest and most prominent, with two smaller circles overlapping its left and right sides. The text is centered within the central circle.

Financial Crimes Defender

- about the presenter

Rene Perez

National Director of Sales - Financial Crimes
Solutions

205.981.1980

rperez@jackhenry.com





**Answer the Poll on
your screen**

- **Fraudemic**

\$151B

Estimated total amount of fraud in the US
Payments \$102.6B
Check \$21B
Scams \$13.9B
Credit card \$13.6B

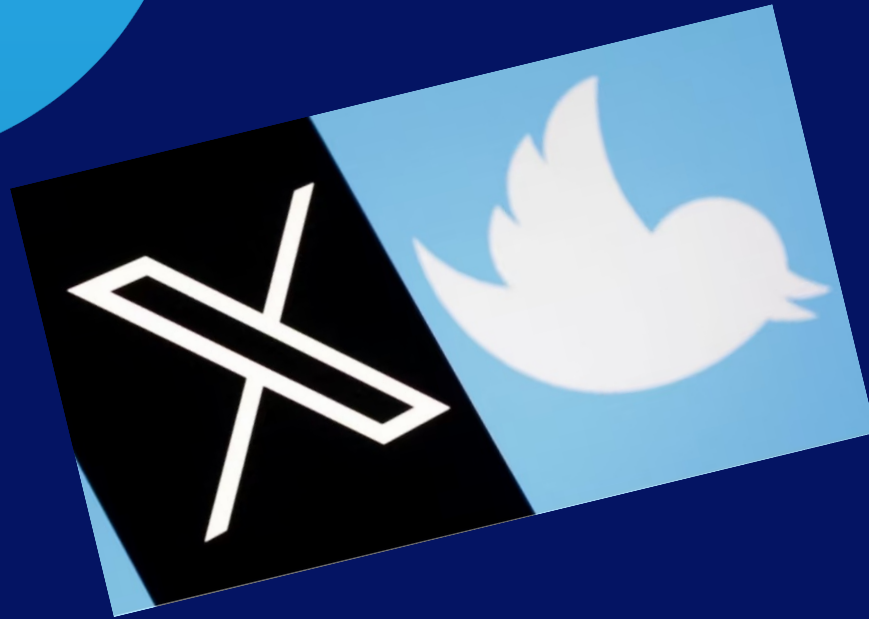
Source: American Banker

\$4.23

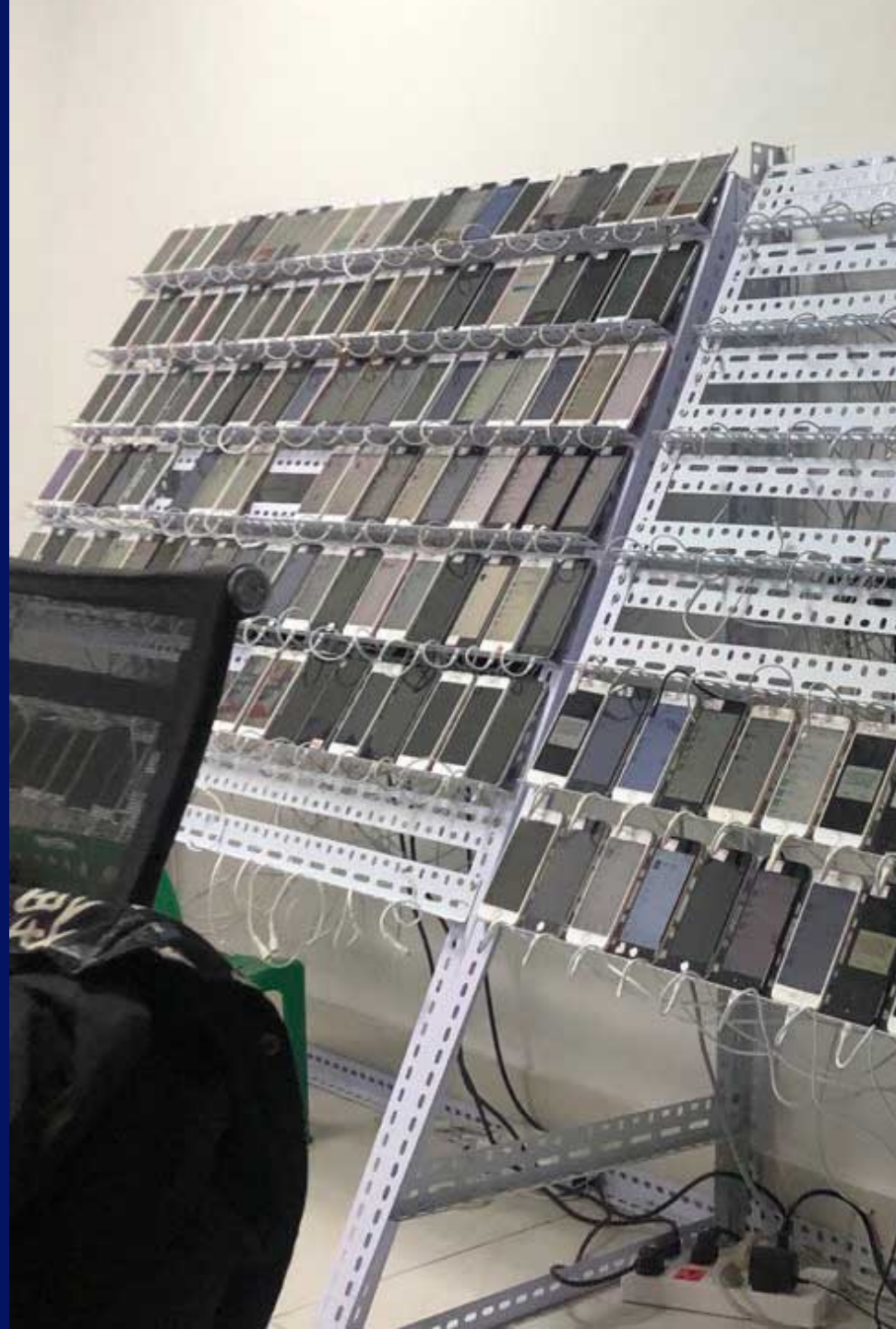
The amount it costs a Financial Institution
for every fraud dollar

Source: LexisNexis

- **Social Media**



- Phone Tree



USA

Maine

Secretary of State
Matthew Dunlap

DRIVER'S LICENSE



4d DL NO. **9702079**

4b EXPIRES **01/06/2028** 3 DOB **01/06/1985**

1 **BENDER**

2 **WELLS HIRAM**

8 **1050 MAIN**
WEST ENFIELD, ME 44934-426

4a ISSUED **12/05/2022** 15 GENDER **M**

16 HEIGHT **5'-10"** 17 WEIGHT **130 lb** 18 EYES **GRY** 19 HAIR **BRO**

9 CLASS **C** 9a END **NONE**

12 REST **NONE**

5 DD **0000000000000000085574237**

John Wicks



01/06/1985

ENDORSEMENTS:
None



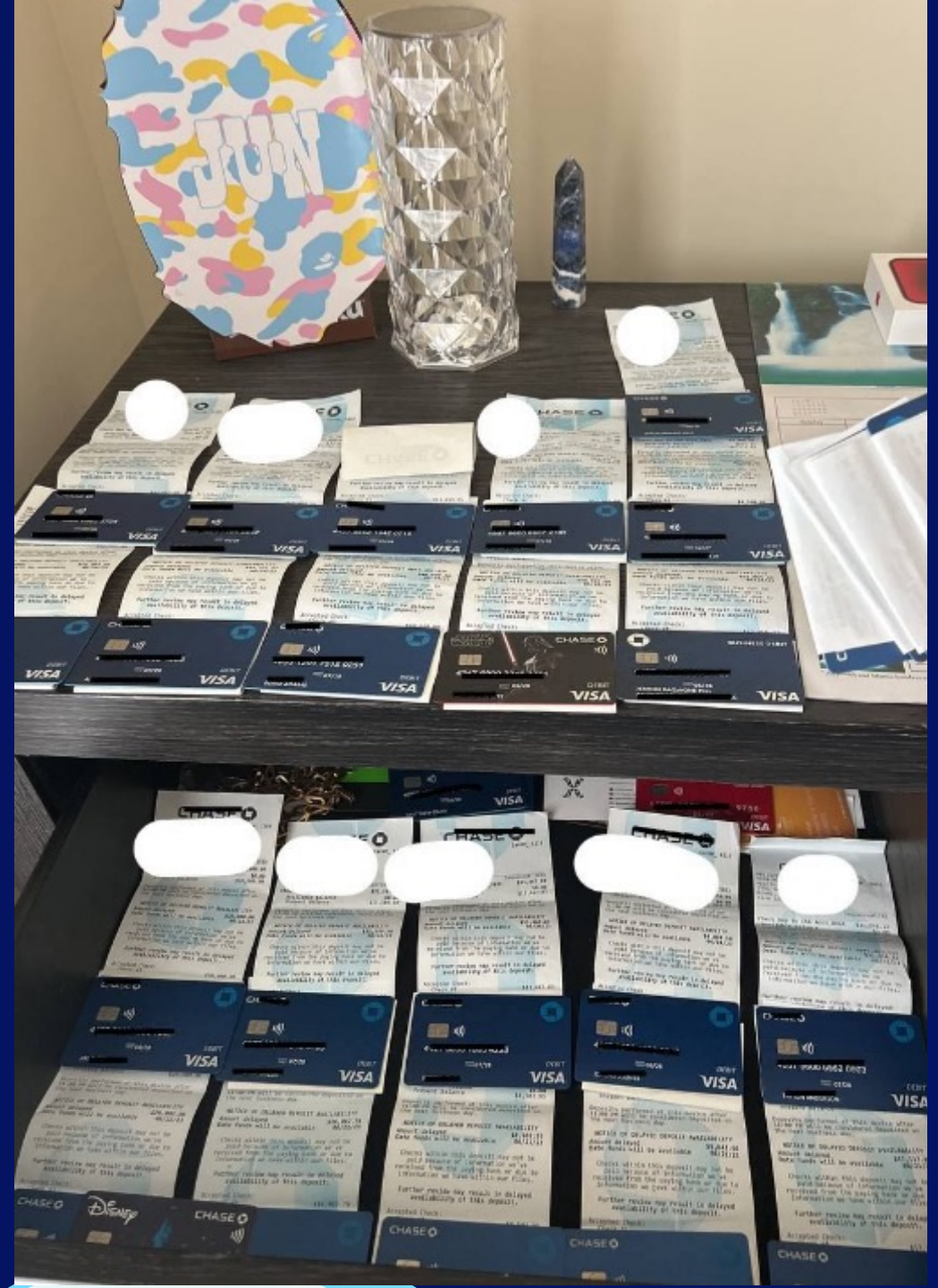
CLASS: C-Single vehicle or combination vehicles that does meet definition of Class A or Class B license.
RESTRICTIONS: None





- **Synthetic ID Account Drop**

- **This was a sample of a drop**



- **Legacy Systems Issue**
 - **Yellow Hammer, Verafin, Abrigo, Nice-Actimize**
 - **All started as BSA systems**
 - **Not designed for real-time**
 - **They are piecemeal fraud add on's that are not highly effective**

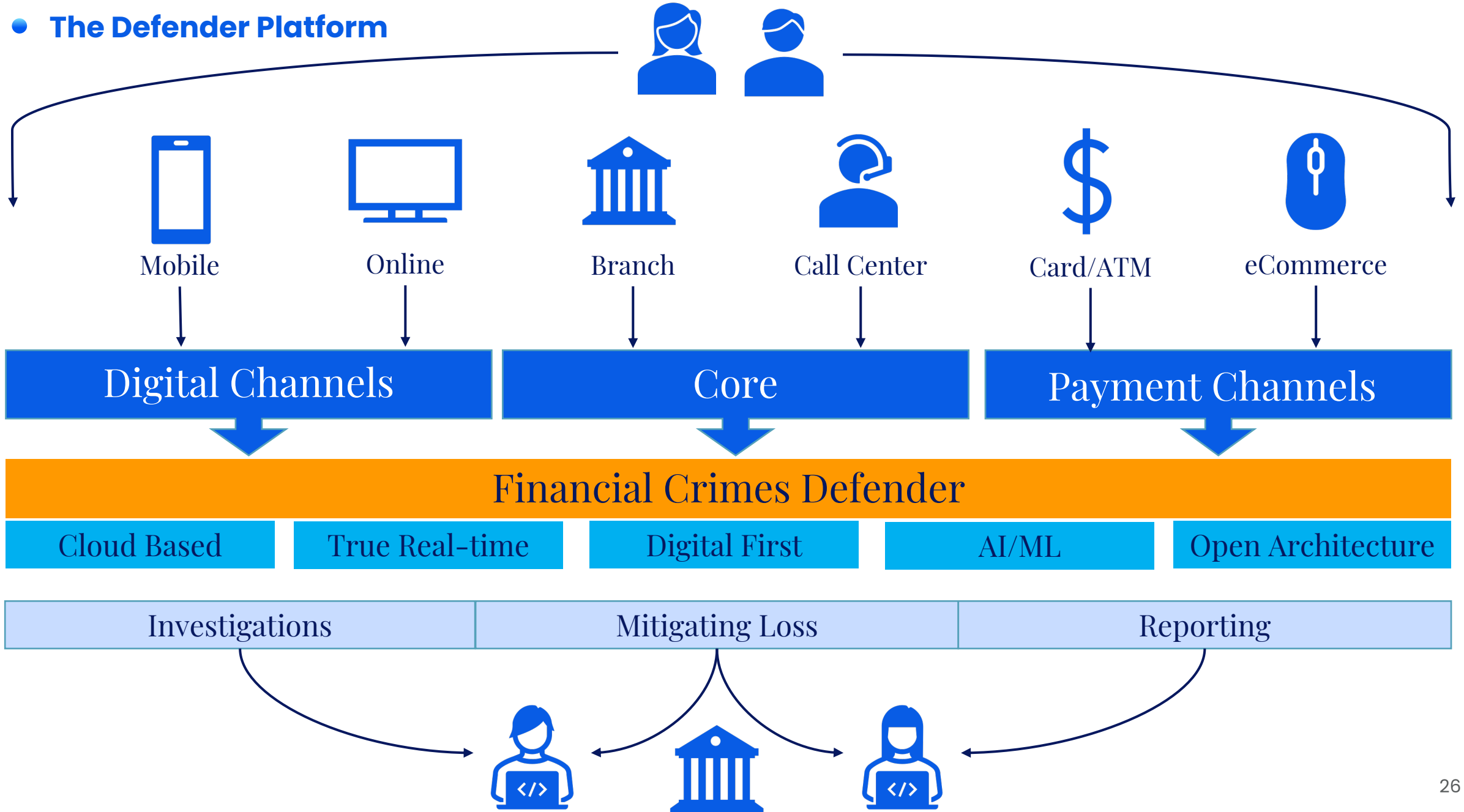
- **Fraud Industry Problem**



- **How to Disrupt Fraudsters**



• **The Defender Platform**



Decisioning Engine

- **Account Profiles**
- **Receiving Profiles**



Fraudster
BoA
Acc 1234

Acc 2345 -
\$1,000 ACH

Acc 5678 -
\$1,000 Zelle

Acc 9876 -
\$5,000 Wire

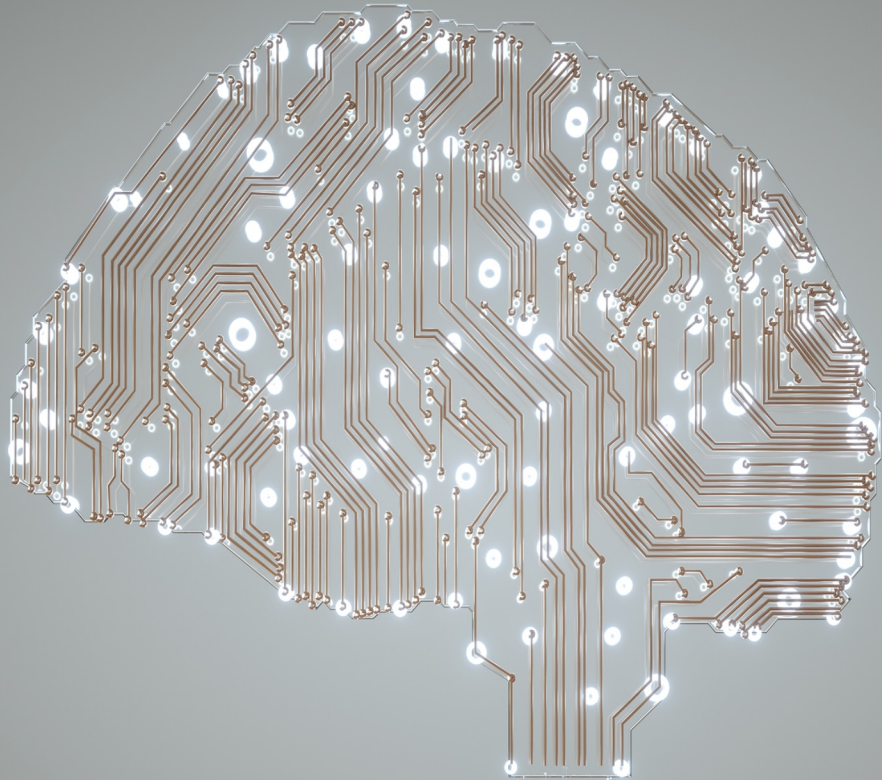
Acc 8989 -
\$5,000
Checks

Acc 1212 -
\$1,500 RTP

Decisioning Engine

- **Account Profiles**
- **Receiving Profiles**
- **Digital Profiles**
- **Velocities**
- **Behavior**
- **Machine Learning**
- **Consortium**
 - National
 - FI Specific





Consortium Modeling

- **Centralized Non-PII Data**
- **Shared Detection**
- **Data Science**
- **Machine Learning Models**
 - Champion
 - Challenger
- **Constant Updates**
- **Ability to Ingest Additional Data**

- **What is Jack Henry Doing?**
 - **Continue to build out Financial Crimes Defender**
 - **Consortium Data is key**
 - **Partnerships are Key for Additional Data**
 - Feedzai
 - American Banker's Association (ABA)
 - Sardine
 - Mastercard
 - Google
 - Dow Jones
 - U.S. Federal Reserve

- **Top 20 Banks – Zelle Fraud Detection Rates**

53% to 83%*

Rate has direct relationship to FI's risk tolerance vs Friction

Models have been fine tuned for 5+ years

*These are estimates based on multiple different data sources as information is not public

- **Jack Henry's Zelle Model Performance Overview**

- **Model based on limited historical data set containing 1272 FI's**
- **This data does not include two key data points:**
 - IP Address
 - Machine ID
 - Estimate this data to raise recall rates 1.5 to 2 times current value
- **This was first pass, includes no tuning, or training**
- **Jack Henry and Feedzai continue to tune the model**
 - maximizing fraud detection
 - minimizing false positives

- **Model Training**

- 1,923,017 transactions

- **Model Validation**

- 1,054,966 transactions

Threshold	FPR	Transaction Recall	Money Recall	Alert Rate	Estimated Alerts	Estimated Fraud Dollars Caught
800	4.85%	69.0%	68.7%	4.96%	859	\$785K
910	1.83%	42.6%	43.2%	1.90%	329	\$483K
980	0.27%	12.4%	11.5%	0.29%	51	\$129K



So what?

- **So What?**

- Fraudsters are organized
- Fraudsters are more sophisticated than people realize
- Single point fraud solutions are a false sense of security
- Consortium data across all channels are key for the future



**Answer the Poll on
your screen**

The image features a dark blue background with three overlapping white circles. The central circle is the largest and contains the text 'Q & A' in a bold, white, sans-serif font. Two smaller circles are positioned on either side of the central one, overlapping its edges. The overall design is clean and modern.

Q & A

jack henry™