

# Payment Fortification: Exploring Fraud Prevention Solutions For Seamless Transactions

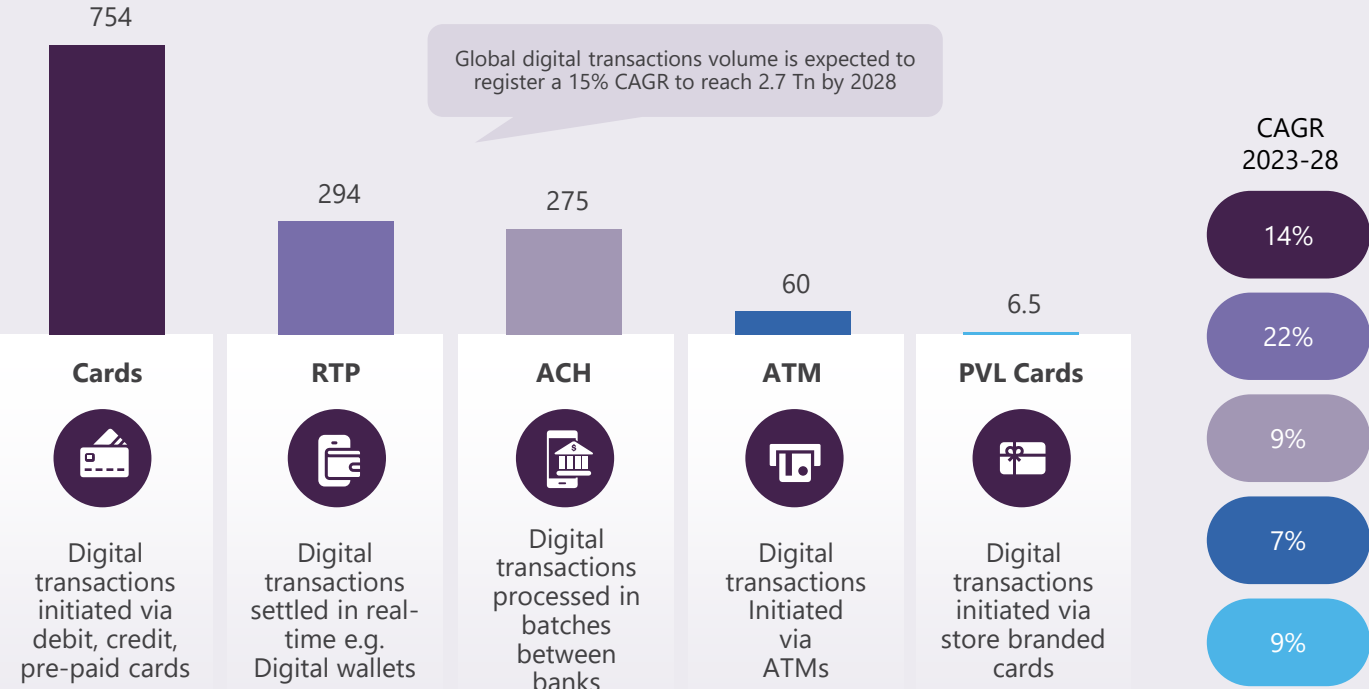
Dec 2023



# Global Digital Payments Landscape

Globally, the payments industry is moving unidirectionally towards digitization of payments systems. Digital transactions are expected to grow more than two-fold by 2028

Global Digital Transactions by Payment Rails\* (2023) – ~1,389 Bn(f)



## Evolution of Global Payments Industry



The global payments industry is rapidly evolving, with the introduction of innovative account-to-account, person-to-person, and person-to-merchant payment solutions



The key growth drivers for digital payment solutions include:

- The COVID-19 induced shift from a cash-based to a digital payment-based economy
- Increasing adoption by merchants
- Increasing penetration of smart devices
- Growing use of digital banking









Along with core payment processing and settlement services, fintech players are increasingly offering value-added-services like fraud prevention, tokenization, identity management, etc., to enhance merchant and end-user experience

Note: \*Underlying infrastructure for funds transfer between parties which include RTP: Real-time Payments, ACH: Automated Clearing House (Direct deposit, Direct payment), PVL Cards: Private Label cards  
 Source: RBR, Euromonitor, Country Central Banks, ACI, FIS Worldpay Report

# Market Landscape with Opportunities in Select Countries

Extensive use of real-time payments (RTPs) in countries such as India and Brazil presents a potential for account-to-account (A2A) fraud-prevention solutions; cards continue to be the primary payment mode in most of the markets

	Country <sup>(1)</sup>	Overall Digital Transactions (2023) (Bn)	Prominent Payment Methods			Common Types of Fraud	Potential Anti-fraud Services Opportunity
			Payment Rails*	Payment systems	Share in digital Transactions**		
RTP Dominant Countries	 <b>India</b>	146 Bn	RTP	UPI <sup>(2)</sup>	57%	<ul style="list-style-type: none"> <li>• Social engineering attacks, including phishing</li> <li>• Authorized push payment with fake invoices and fraudulent investment schemes</li> <li>• Account takeover through unauthorized access</li> </ul>	<ul style="list-style-type: none"> <li>• A2A scam solutions that can identify mule accounts</li> <li>• Identity verification and authentication tools</li> <li>• Merchant onboarding for preventing money laundering by micro-merchant</li> </ul>
	 <b>Brazil</b>	122 Bn	RTP, cards	PIX, Prepaid cards	26%, 23% resp.		
Card Dominant Countries	 <b>US</b>	216 Bn	Cards	Debit cards	47%	<ul style="list-style-type: none"> <li>• High card-not-present (CNP) frauds wherein card transactions are conducted without any physical card</li> <li>• In Australia, CNP frauds account for the highest share (~90%) of card frauds</li> <li>• Identity theft involving the unauthorized use of personal information</li> <li>• Lost and stolen card frauds</li> </ul>	<ul style="list-style-type: none"> <li>• Tokenization solutions that can protect sensitive card data</li> <li>• Real-time authorization decisioning solutions</li> <li>• Identity verification and authentication tools</li> </ul>
	 <b>France</b>	37 Bn			28%		
	 <b>Saudi Arabia</b>	9 Bn			66%		
	 <b>Australia</b>	36 Bn	ACH, cards	BECS <sup>(3)</sup> , Debit cards	57%, 29% resp.		

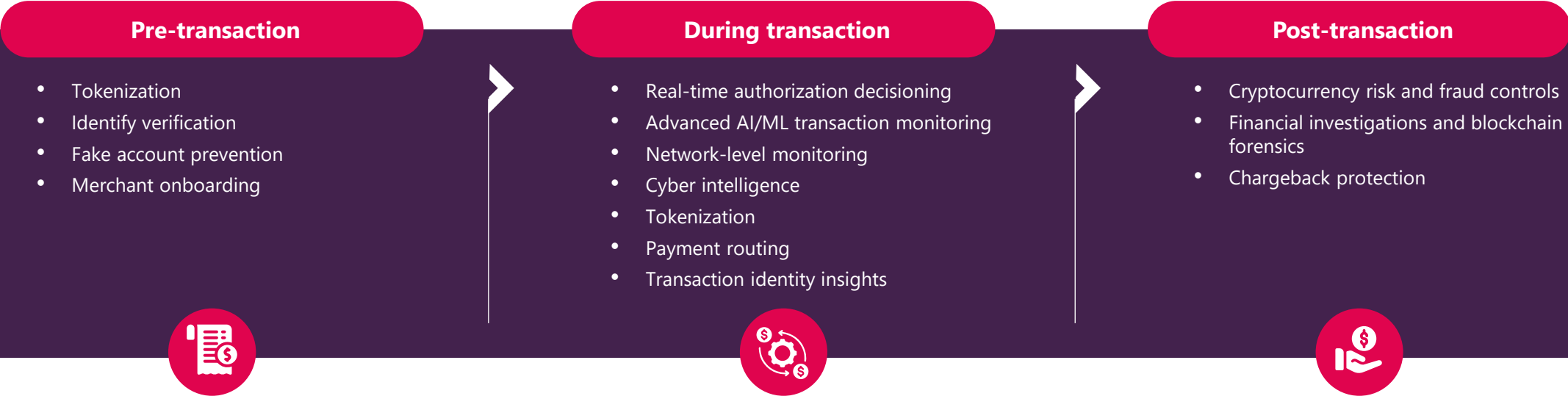
Note: (\*) Payment Rails with more than 20% share in digital transactions mentioned in the table (\*\*) Share of payment system (not payment rail) in digital transactions in 2023

(1) The list is not exhaustive and consists of the top markets from each region (2) Unified Payments Interface (3) Bulk Electronic Clearing System

Source: RBR, Euromonitor, Country Central Banks, ACI, FIS Worldpay Report

# Solution Fitment in Transaction Value chain

The transaction value chain has three stages: pre-transaction, during transaction, and post-transaction. The feasibility of a security solution depends on the stage of the value chain and user type



## Traditional Users of Anti Fraud Solutions

### Issuer

Financial institutions that issue payment cards to consumers and authorize transactions based on available funds or credit

### Acquirer

Financial institutions that establish and maintain merchant accounts, allowing them to accept card payments

### Merchant

Businesses or individuals selling goods or services

## Solutions Used

Tokenization, identify verification, real-time authorization decisioning, financial investigations and blockchain forensics

Merchant onboarding, transaction identity insights, and AI / ML technologies for real-time intelligence

Tokenization, identify verification, fake account verification, payment routing, etc.

# Emerging Adjacencies Outside the Core

The increasing adoption of digital payments across traditional and emerging industries, coupled with a shift towards digitalization by small and micro merchants, presents a huge opportunity for anti-fraud solution providers

## Evolving Market Opportunities



### Crypto-currency

The cryptocurrency industry lost ~\$3 Bn in 2022 due to multiple hacking incidences related to money laundering, phishing and fake coin offerings



### E-Gaming

The e-gaming market, which includes both free-to-play and pay-to-play games, will likely grow to \$431.8 Bn at a CAGR of 19.6% during 2023-30. It will also witness a growing demand for security services related to account creation, login attacks, and transactions



### Metaverse

The global Metaverse market is likely become a ~\$1.3 Tn market by 2030. With increasing popularity of crypto-assets, risk of financial frauds & phishing is also increasing in the virtual world



### Healthcare

Healthcare is the third-most targeted industry by cyberattacks. In 2018, payers in the US lost ~\$300 Bn in cyber fraud, including fraudulent insurance claims



### SMBs

The increasing adoption of digital payment tools by small and micro merchants is driving up the risk of money laundering. Almost \$300 Bn is laundered yearly, which reflects the growing demand for merchant identity verification and transaction monitoring tools

## Potential Anti-fraud Solutions

Identity verification, blockchain analytics & scam prevention solutions

Identity verification, account validation & transaction risk monitoring solutions

Transaction risk monitoring solutions, identity verification & cybersecurity solutions

Biometric authentication, AI-based pattern recognition for detecting medical claims adjudication and billing errors

Merchant onboarding/ e-KYC & identity verification solutions

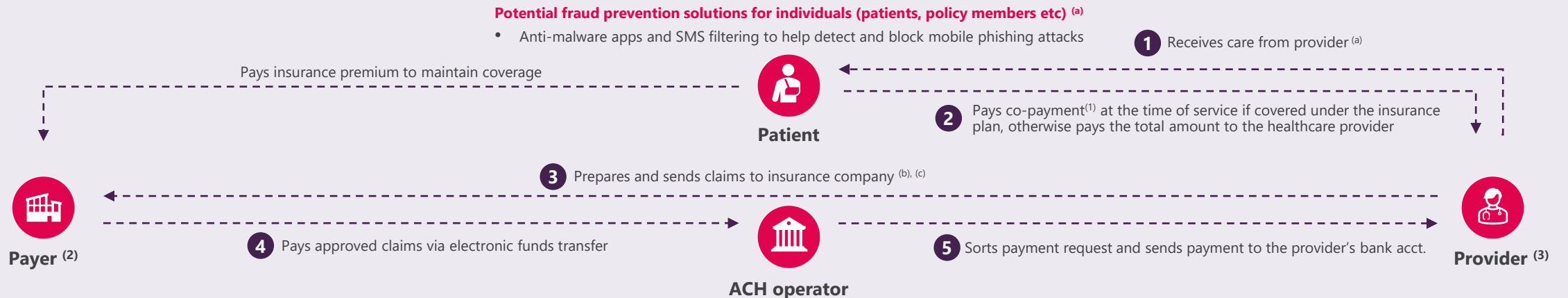
# Prospective of Fraud Solutions in Healthcare Market – Case Study

As the healthcare industry continues to evolve and embrace technological advancements, the need for effective fraud prevention solutions becomes increasingly critical



Moody's considers the healthcare industry as 'cyber poor'; healthcare organizations allocate only 6% of their IT budgets to cybersecurity despite increasing cyberattacks

## Payment Transaction Flow in Healthcare Industry



### Types of fraud triggered in payment flow<sup>(\*)</sup>

- a) **Identity theft:** Using someone else's identity and sensitive information to obtain medical services
- b) **Phantom billing:** Billing for services or procedures that were never utilized
- c) **Upcoding:** Assigning a higher billing code to a service to receive a higher reimbursement

Note: (1) percentage of the claim that the insured agrees to pay from his/her pocket irrespective of the claim amount. (2) Healthcare insurer, a third-party administrator, or a government-funded plan (like Medicare) remit funds to the claimant (3) Institutions like hospitals, healthcare centers which submit claims to insurance companies or directly bill patients (\*) list not exhaustive

# How Evalueserve Can Help?





# What Evalueserve Can Offer to Support Your Business Strategies?



**20+ Years Of Experience and Deep Industry Know-how** with 300+ analysts per vertical focused on dedicated industries catering to Fortune 500 customers



**Support Across Developed & Emerging Markets** with analysts conducting in-depth, offering support in 25 languages



**Top Line and Bottom-line Impact** with services focused on direct and sustainable positive impact with strong research frameworks

## Identify

- Identify new business opportunities with traditional & emerging use cases
- Understand market demand for fraud detection solutions
- Unlock new revenue streams

## Assess

- Assess customer sentiments to identify pain points
- Evaluate competition to understand market positioning
- Benchmark offerings to create a value proposition

## Strategize

- Strategize route-to-market and partnerships
- Develop product positioning strategies
- Formulate Blue Ocean strategy for emerging use cases



# Contributors

## Lakshya Bahl

Senior Consultant, TMT Practice  
Evalueserve

- Strategy consultant with expertise in commercial due diligence
- Proficient in market assessment, industry trends analysis and competitor benchmarking



[LinkedIn](#)



[Email](#)



## Namrata Verma

Senior Analyst, TMT Practice  
Evalueserve

- Strategy consultant with expertise in market assessment & market sizing studies
- Experience in market research & competitive intelligence projects for TMT clients



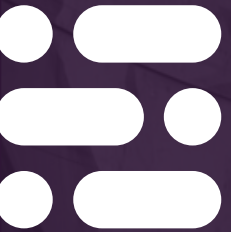
[LinkedIn](#)



[Email](#)

**Mentor:** Saurabh Chhabra, Associate Director – TMT Practice, Insights & Advisory

**Elevate Your Impact**



**EVALUESERVE**