



2025 EUROPE COMMUNITY MEETING

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COMMUNITY
MEETING

Shift in Perspective:

Card-Linked QR Payments



Nicholas Lim

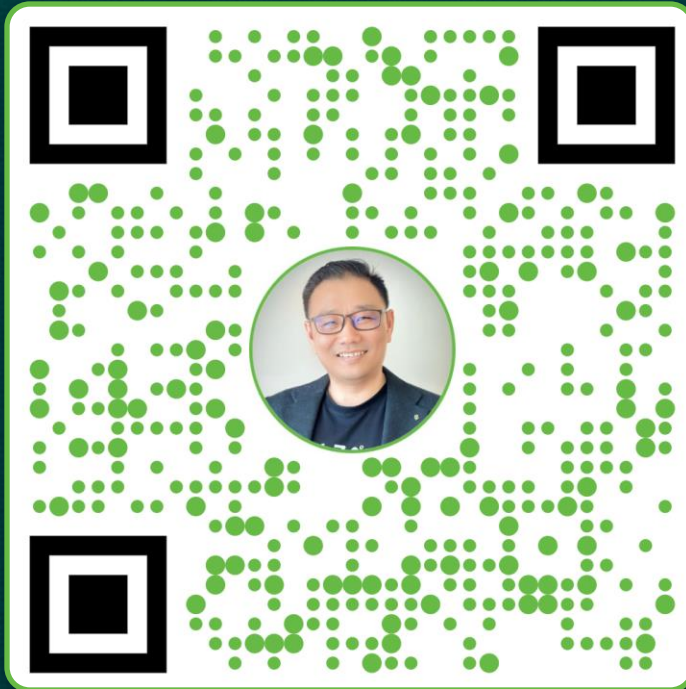
Chief Technology Officer

Soft Space



QR – Quick Response code

Possibilities



Nicholas Lim


CHIEF TECHNOLOGY OFFICER

A visionary technology leader with over 15 years of experience, driving innovation in the fintech landscape. Specializing in cutting-edge payment solutions, digital transformation, and architecting scalable platforms. Passionate about leveraging AI, Blockchain, and Stablecoin technologies to reshape the future of finance and create impactful, disruptive solutions.

 Company

 LinkedIn

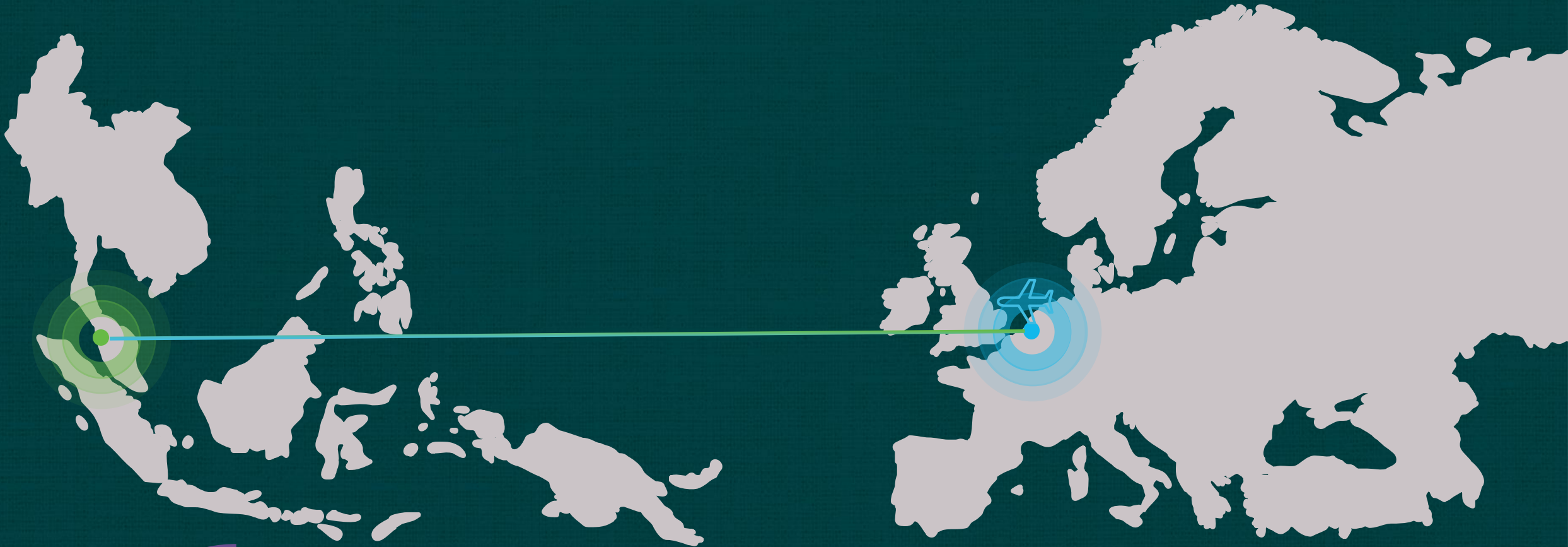
 Instagram

 YouTube



Back to the Future

Where it all begins



South East Asia

The rise of QR payments



Mobile-First
Leapfrog



Government Role &
Financial Inclusion



Low Infrastructure
Costs



Cross-Border
Interoperability Efforts

QR Type

Payment Modes & Rails

Merchant Presented



present



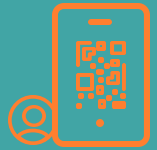
scan



process



Customer Presented



present



scan



process



Card Rail

PAN-Centric

Built on cards networks

Uses PAN / Token





A2A Rail

Identifier-Centric
Built on real-time
payment networks
Uses mobile number or
proxy ID

QR AoC

Area of Concerns

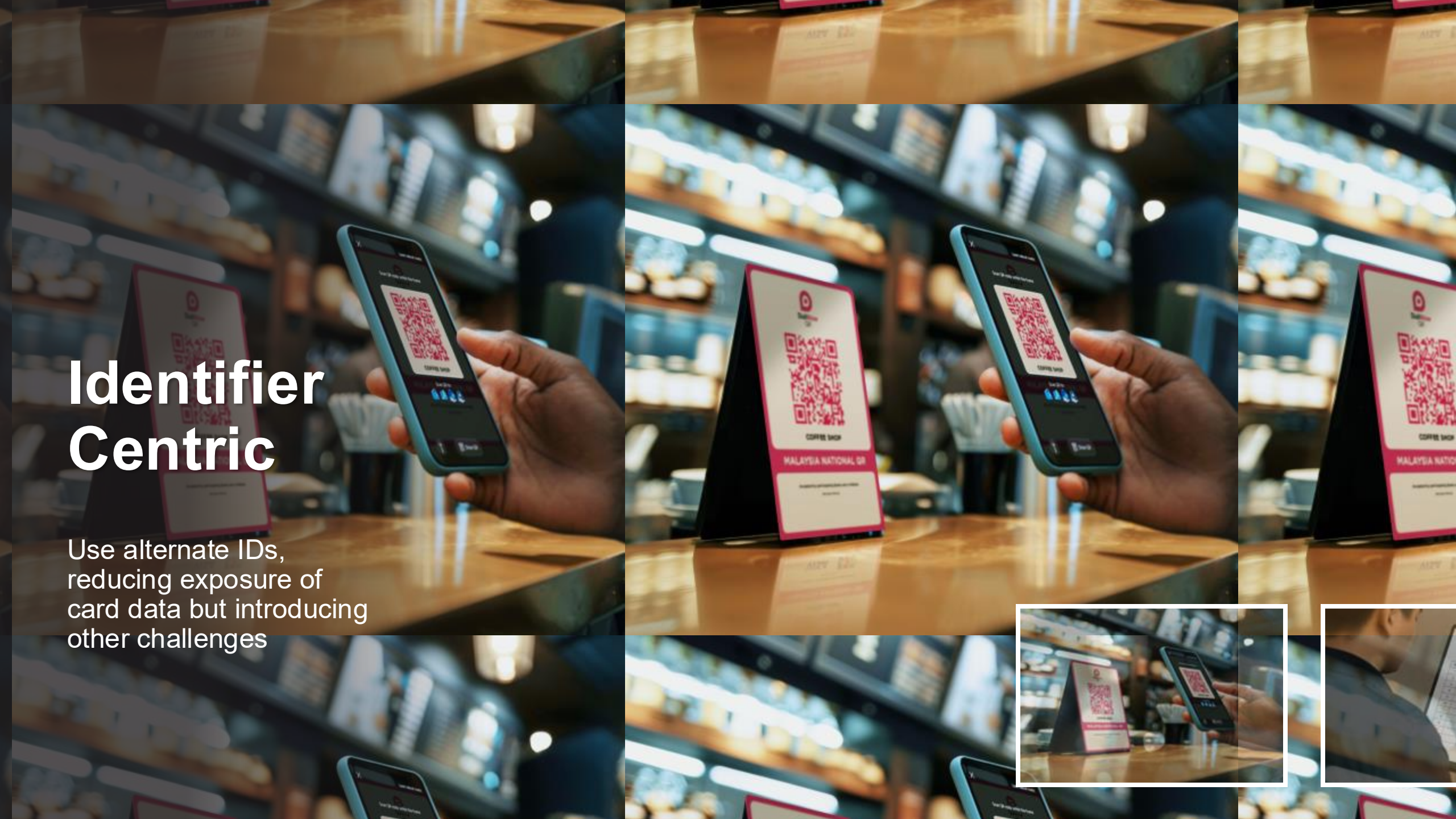
PAN Centric

Rely on sensitive card data, making them highly vulnerable to breaches and requiring strict compliance measures



Identifier Centric

Use alternate IDs,
reducing exposure of
card data but introducing
other challenges



CARD RAILS

A2A RAILS

Functionality Gaps

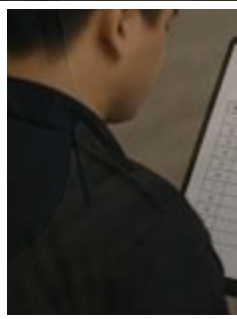
- PAN-centric
- Supports online and offline
- Features rich (support pre-auth)
- Follow card dispute rules

- Identifier-centric (mobile number, proxy ID)
- Online only
- Primarily one-time payment
- Typically, irreversible

Security Gaps

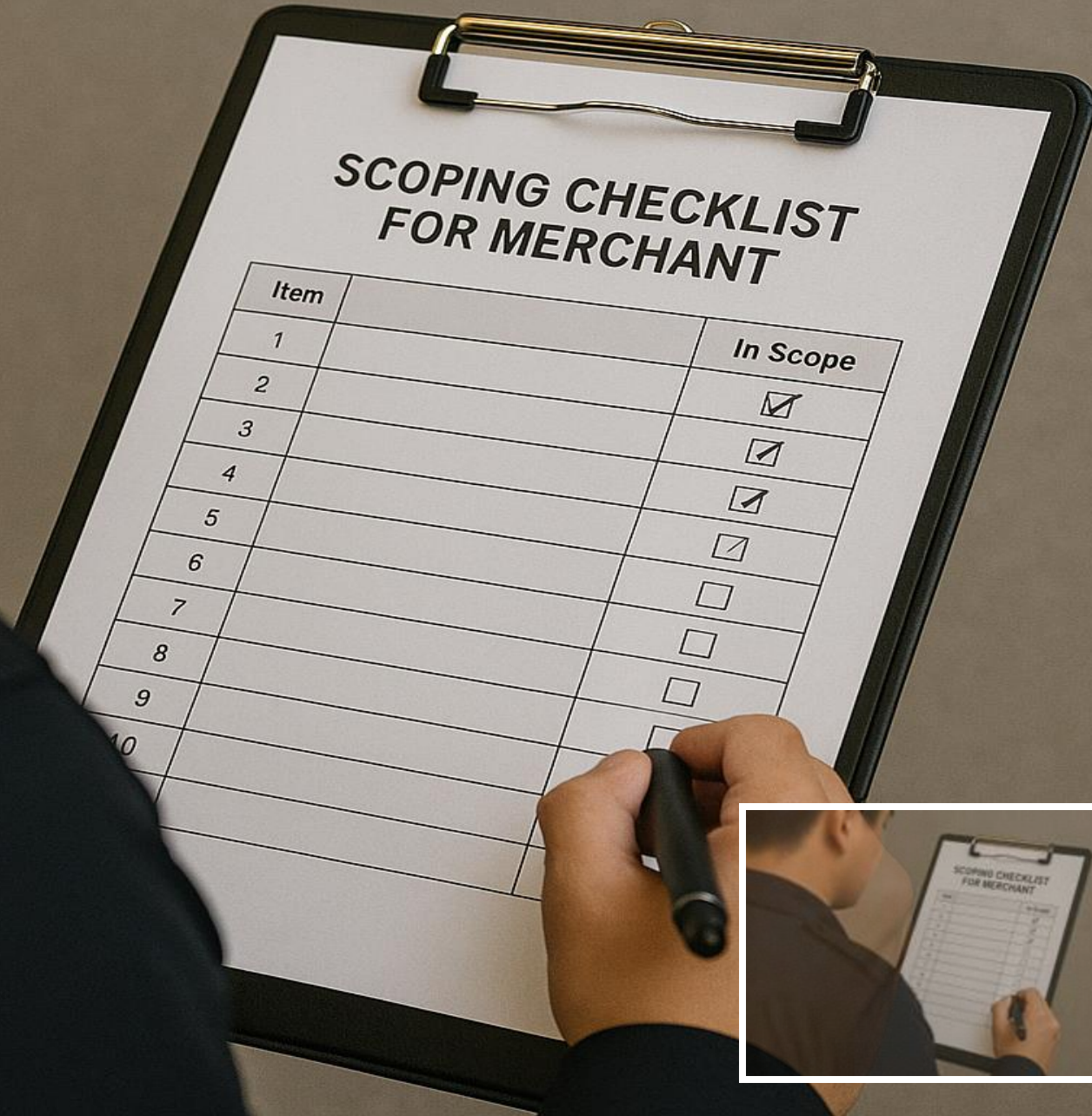
- Standardised security requirements and coverage
- PCI DSS, PCI KMO, PCI 3DS, PCI MPoC, PCI SSLC, PCI P2PE
- EMVCo L1, L2, L3, EMVCo SBMP

- Identifier-based registration
- Fragmented security requirements
- Authentication & Authorisation frameworks
- Different standards from Fis and providers



Security Scoping

While simple, cost-effective, and widely adopted, it introduces unique security complexities



Merchant System Handle PAN / Token?

Card Rail

MPM | CPM



In-scope

A2A Rail

MPM | CPM



Not In-scope

Multi-rails Confusion



Scope Confusion

THREATS OF EMERGING TECHNOLOGIES



AI & Quantum

Emerging technologies promise innovation but also introduce new attack surfaces that was never anticipated.



AI Threats

- AI-Powered Quishing
- Synthetic Identity Fraud
- Malware Delivery
- Trust Exploitation
- Enhanced Account Takeover


Quantum Threats

- Quantum disruption
- Harvest Now, Decrypt Later (HNDL)
- Quantum Vulnerabilities
- Arrival of Q-Day

Our industry built
its security on the
Compliance Clock

A close-up of an antique brass pocket watch with Roman numerals on a sunset background. The watch is positioned on the left side of the image, with its face showing Roman numerals from III to XII. The hands are black and the watch has a polished brass finish.

The future will be
won by those who
are timed to the
Threat Clock

A digital clock displaying 10:15 in blue LED lights against a dark background with city lights. The clock is positioned on the right side of the image, with the time 10:15 displayed in a bright blue, segmented font. The background is dark with some blurred city lights.

WHICH
CLOCK
IS YOUR
STRATEGY
SET TO

