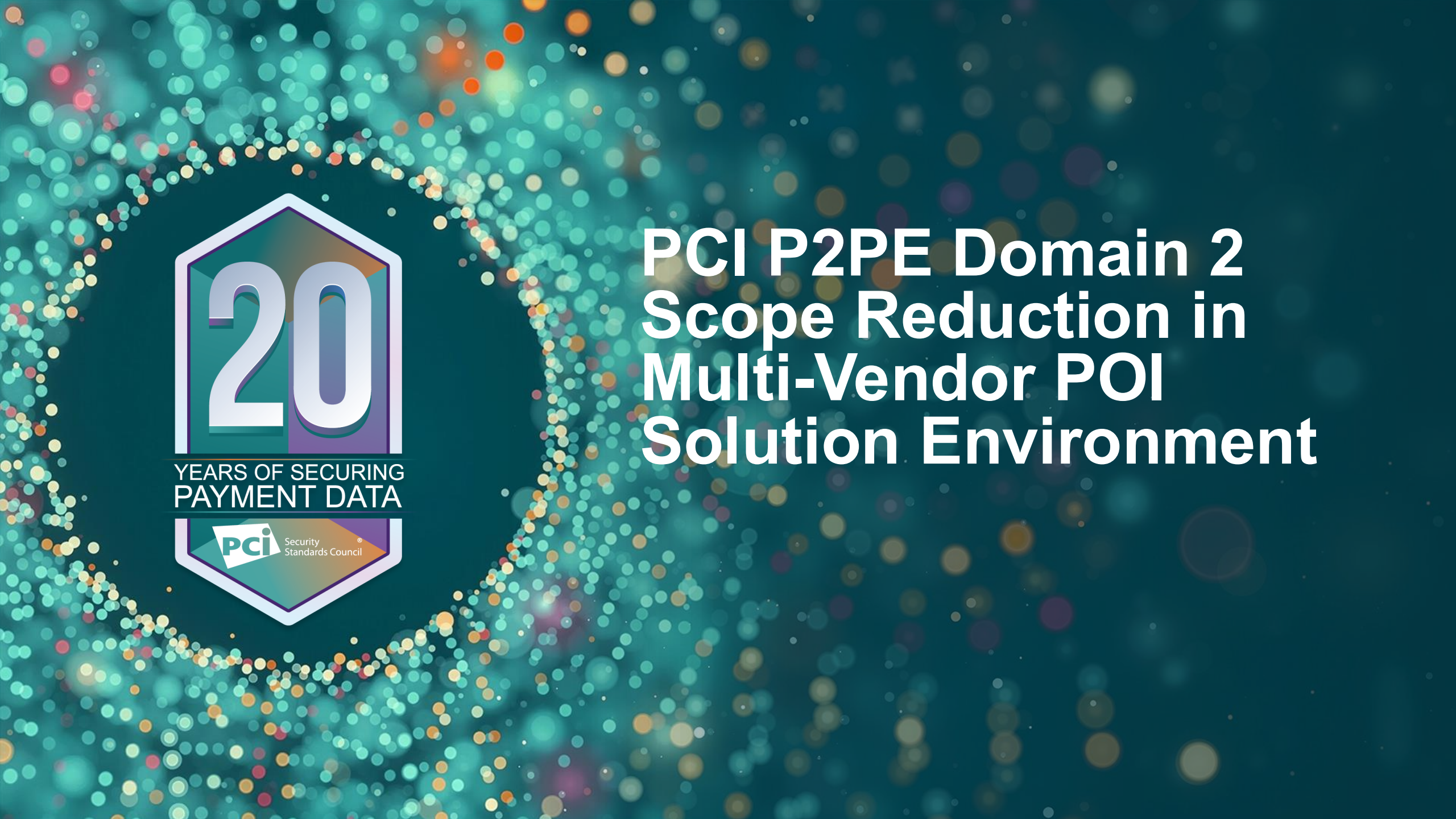


PCI P2PE Domain 2 Scope Reduction in Multi-Vendor POI Solution Environment

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20 YEARS OF SECURING PAYMENT DATA
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AGENDA



- PCI P2PE standard overview
- Case study : Challenges and solution approach

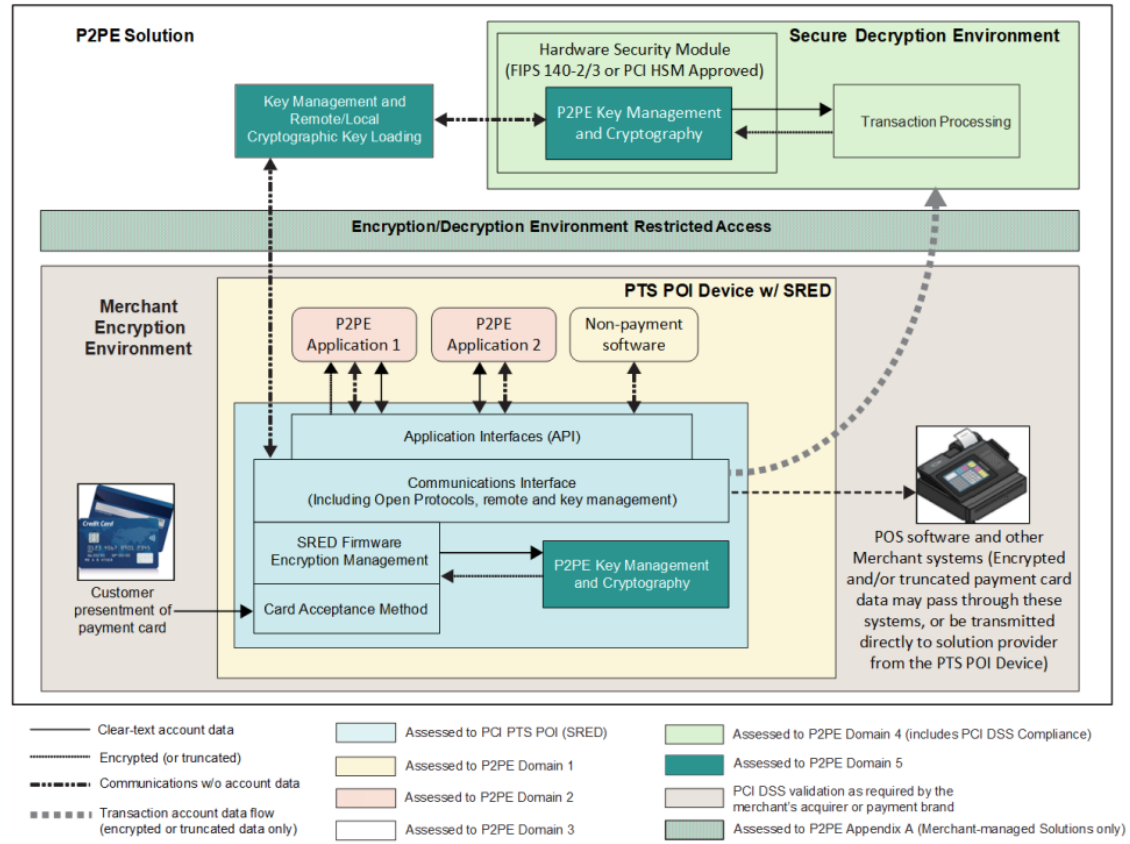
P2PE Overview



P2PE Standard

In a nutshell

- Protects cardholder data
- Reduces the risk of data breaches
- Reduces PCI DSS scope
- Builds customer trust



Case Study:
Multi-Vendor POI P2PE solution



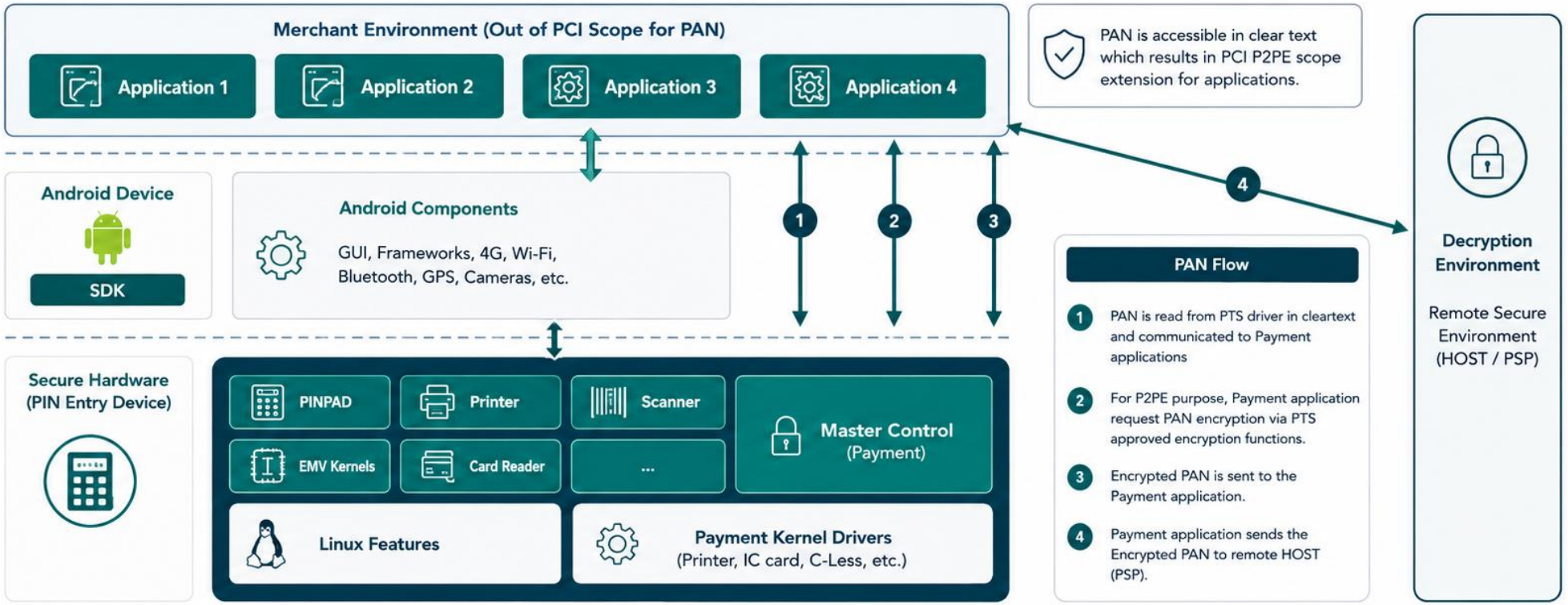
Context



- Multiple payment applications
- Dependency to vendor
- SDK/firmware for security,
- Heavy/Costly P2PE certifications

P2PE Solution – Architecture & PAN Flow

PAN never enters the merchant environment in clear text



Key Principles

- PAN encrypted at the point of interaction (PTS approved)
- PAN remains encrypted within the device
- Only encrypted PAN transmitted to PSP
- Decryption occurs exclusively in approved secure environment

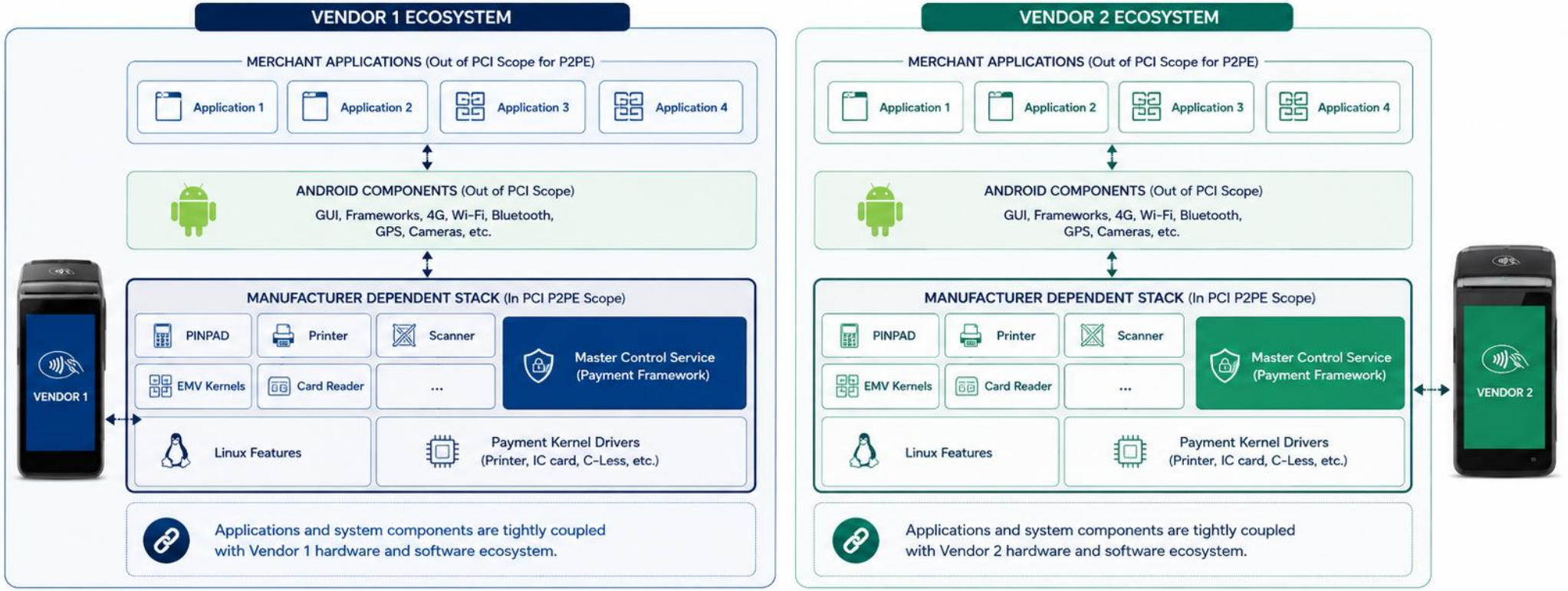
Standards & Compliance

- ✓ PCI P2PE v3.x
- ✓ PCI SSC Approved PTS Devices
- ✓ PCI DSS Scope Reduction

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Current Challenge: Applications are tightly bound to the terminal manufacturer

Multi-vendor POI solutions today result in multiple PCI P2PE environments and duplicated integration efforts.



IMPACT

Each terminal manufacturer requires its own integration, certification, and PCI P2PE environment. This increases complexity, cost, and time-to-market for merchants and PSPs.

P2PE SOLUTION

Decouple applications from hardware by using a standardized P2PE Security Module to protect PAN, enabling vendor independence and **true scope reduction.**

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Approach


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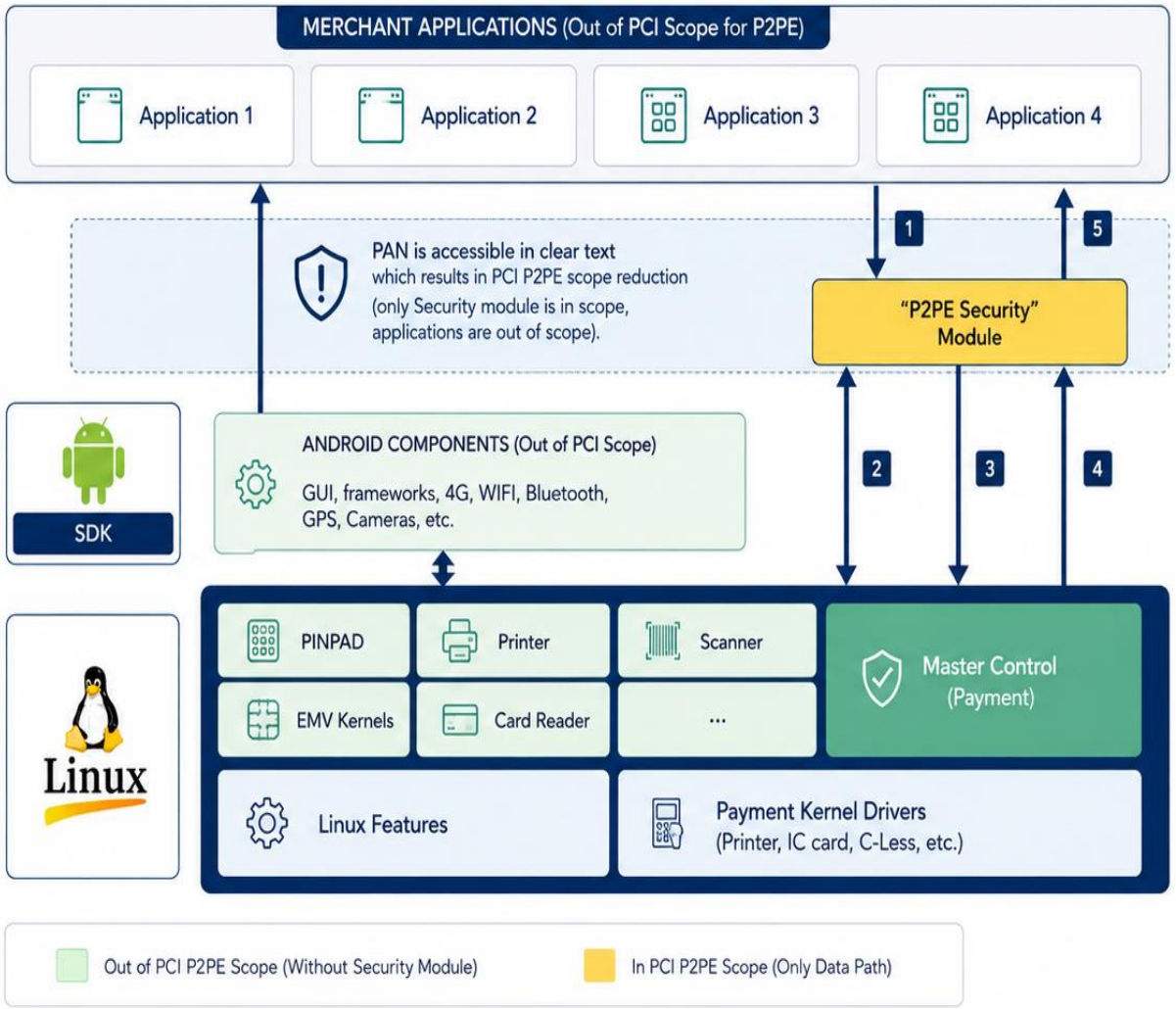
Measures

- Decouple Payment Application from security functions.
- Relocate CHD access & security into a unique component “P2PE security module”.
- Payment applications only receive protected CHD (encrypted/Masked) from P2PE security module.

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Current Architecture – PAN Flow & Scope Extension

Without P2PE Security Module: PAN is accessible in clear text, extending PCI P2PE scope.



PAN FLOW

1. Payment application request PAN from the "P2PE Security" module.
2. "P2PE Security" Module calls SRED function to read the PAN.
3. P2PE Security Module instructs SRED to encrypts Clear Text PAN using P2PE encryption keys.
4. SRED communicates the P2PE encrypted PAN to "P2PE Security" Module.
5. "P2PE Security" Module transmits the P2PE encrypted PAN to the requesting Payment application.

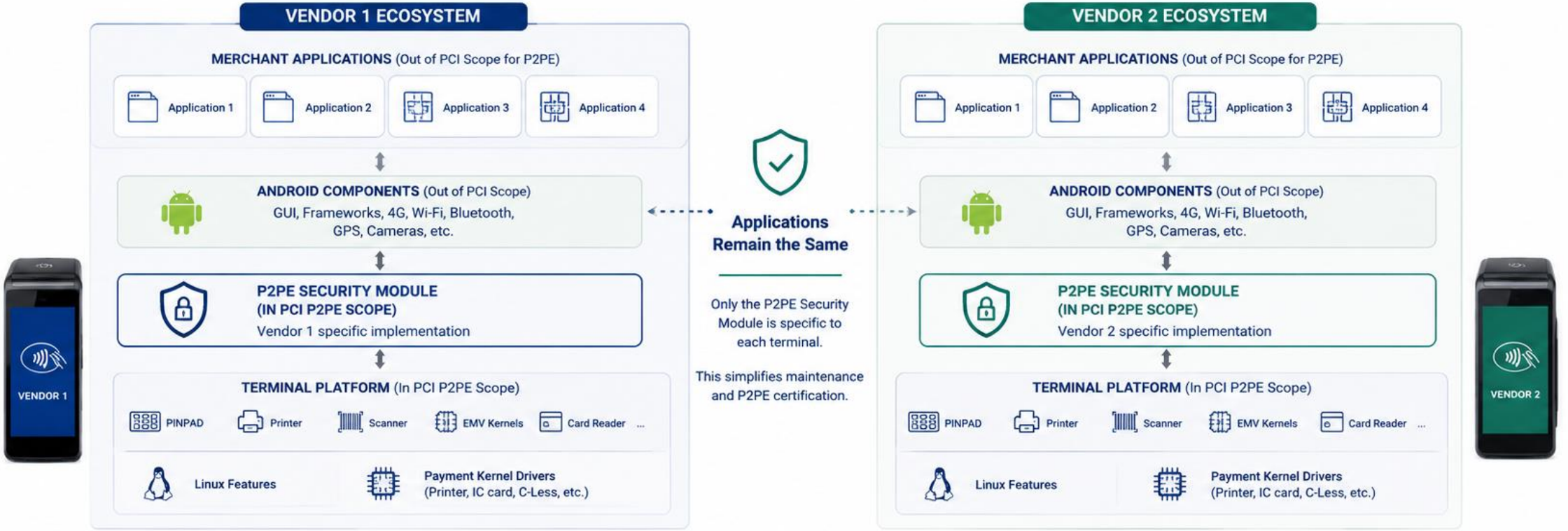
Scope Impact

Because PAN is available in clear text within the payment application layer, this extends PCI P2PE scope to include the applications.

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P2PE Solution: Applications Independent from Terminal Manufacturer

Same applications across different terminal manufacturers.
Only the P2PE Security Module changes.



KEY BENEFITS OF THIS APPROACH

Application Independence
Applications are decoupled from hardware manufacturers.

Easier Maintenance
Update applications once, deploy across multiple terminals.

Simplified P2PE Certification
Only the P2PE Security Module requires P2PE certification per vendor.

Lower Cost & Faster Time-to-Market
Reduced development, integration and certification efforts.

By standardizing the P2PE architecture, organizations achieve true application portability, reduced complexity and faster, more cost-effective P2PE compliance.

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Benefits of the approach :

- Payment applications are out of P2PE scope.
- Payment application code base remains the same from one vendor to another.
- Payment application & P2PE Security modules have independent life cycles.
- Only « P2PE Security module » is certified per vendor.

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Thank you !