Product Sheet

CardInk

The most flexible payment
data preparation system

The most flexible data preparation solution for any central and instant issuance of contact and contactless payments applications.

The EMV® standards today dictate the format of issuance of contact and contactless payment applications, being issued on physical cards or on mobile. The PCI standards (Payment Card Industry) dictates the security requirements and best practices of how to issue those cards and payment applications.

CardInk is a proven and flexible EMV® data preparation system, allowing issuers and card bureaus to produce payment application data to be personalized on the form factors of their choice.
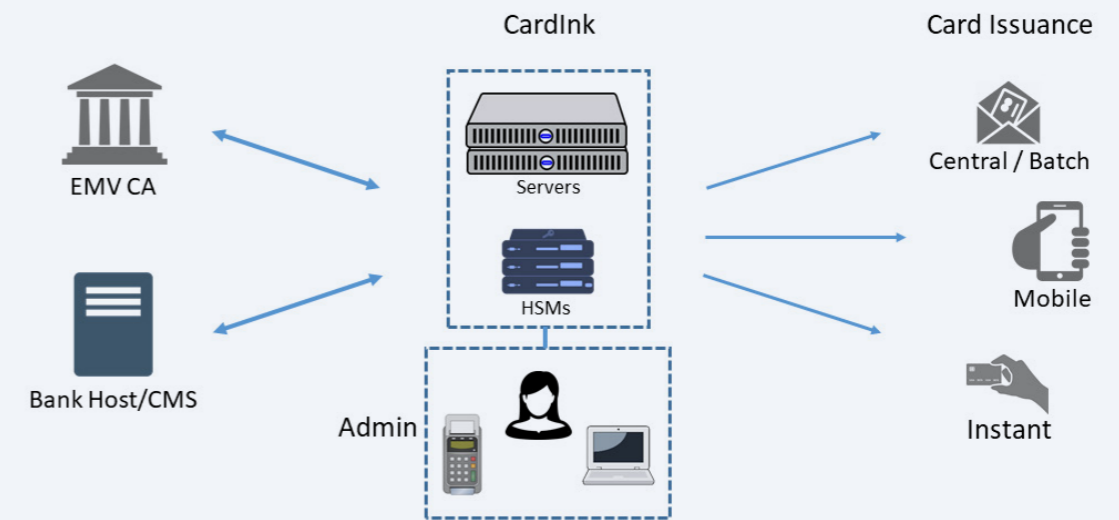
- Data preparation for any payment application on all card platforms
- Easy proof of compliance to PCI
- Hardware vendor agnostic – supporting all major HSM brands and personalization machines
- Complete and fully integrated key management
- Easy-to-use GUI for full control and fast editing of EMV® profiles, for quicker time to market

Technical Architecture

CardInk is built on a resilient client-server architecture. Hardware Security Modules (HSMs) are used to guarantee the quality of the key material generated and to ensure security in all crypto-operations required during EMV data preparation.

High availability is ensured through clustering of servers, databases and HSMs.

An intuitive GUI facilitates the creation of payment profiles for any card profile and provides comprehensive key management operations. Strong user authentication is supported by the use of smart cards and PIN.

All critical operations are recorded in a tamper-proof log for audit purposes.

Typical Use Cases

Implemented by bureaus, payment card processors and card issuers, CardInk is used by 200+ customers over six continents for:

- Central issuance (batch processing) of contact and contactless cards
- Instant issuance
- Issuance for mobile payment applications
- PIN generation
- Data authentication support: SDA, DDA, CDA for off-line cards

Technical specifications

Applications Supported

- MasterCard: M/Chip Lite | Select | Advance, PayPass, Mobile, Magstripe & PIN, DPA
- Visa: VSDC, VCPS (MSD / qVSDC), Mobile, Magstripe & PIN, DPA
- American Express: AEIPS, Expresspay, Magstripe & PIN
- Discover: D-PAS Contact/Contactless, Contactless, Magstripe & PIN
- China UnionPay
- EMV Common Payment Application
- Gemalto PURE
- Interac
- SAMA SPAN2
- SIA Bancomat

Card Platforms

- GlobalPlatform
- MULTOS
- Native cards (proprietary card e.g. Advantis)

Formats Supported

- Common Personalization Standard
- Tag-Length-Value

PIN Generation

- IBM 3624, IBM 3624 PIN-offset
- Random PIN

Operating System:

- Microsoft Windows

DB:

- Microsoft SQL Server
- Oracle

HSMs:

- Entrust
- Thales
- Utimaco

CardInk: User-friendly EMV® Data Preparation

CardInk provides a flexible and easy-to-use data preparation solution for issuers and card personalization. The bank host, or the card management system, will feed data to CardInk, which will output payment data in standard formats. CardInk output files are used on a variety of perso systems, including Mühlbauer, Atlantic Zeiser, Datacard, CIM, and Matica. CardInk interfaces with card management systems and is fully automated. Once the card profiles are created, the automatic data preparation process can begin. The bank host integrates with CardInk using a data preparation API or via a web service. Both integration points offer load balancing and failover for a complete CardInk cluster.

Case Study - S2M

Market leader seeks best-of-breed card issuing solution

After ten years of successfully issuing EMV® chip cards, S2M, a North African pioneer in card payment solutions, took the strategic decision to re-evaluate its card issuing platform. By deploying Cryptomathic CardInk for EMV data preparation, S2M was able to reuse parts of the existing infrastructure, including the HSMs, producing significant direct cost savings.

Case Study - Crédit Agricole

European multi-application EMV cards

Crédit Agricole undertook one of the world's first and biggest multi-application EMV® issuing projects. With Cryptomathic CardInk providing data preparation, every fourth cardholding bank customer in France has chip-enabled credit and debit cards for domestic and international use from Crédit Agricole.

ABOUT CRYPTOMATHIC

Cryptomathic is a global provider of secure server solutions to businesses across a wide range of industry sectors, including banking, government, technology manufacturing, cloud and mobile. With over 30 years' experience, we provide systems for Digital Identities & Signing, Payments, Key Management and Mobile App Security, through best-of-breed security solutions and services. We pride ourselves on strong technical expertise and unique market knowledge, with two-thirds of employees working in R&D, including an international team of security experts and a number of world renowned cryptographers. At the leading edge of security provision within its key markets, Cryptomathic closely supports its global customer base with many multinationals as longstanding clients.

Learn more at cryptomathic.com

v1.2