

FLEXIBLE AND SECURE SOLUTIONS FOR EMV DATA PREPARATION, CARD ISSUANCE, CARD PERSONALIZATION AND TRANSACTION PROCESSING

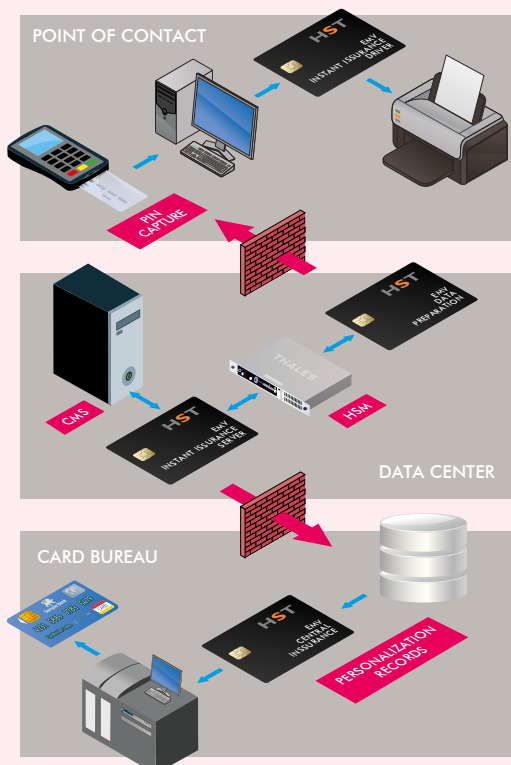
► Solution Benefits

- Provides integrated product suite for EMV migration and card lifecycle management to reduce time to market for issuers
- Offers highly scalable and resilient solution to reduce deployment risk in mission critical environments
- Supports wide range of card scheme EMV payment applications for both contact and contactless cards to provide maximum flexibility
- Ensures all keys and sensitive data are protected at all times by HSMs to simplify security audit compliance
- Creates the secure foundation to support mobile provisioning and payment processing to maximize the reuse of the issuer back office card infrastructure



Thales e-Security

HST Solutions for Issuers, Acquirers and Service Providers with Security Assured by Thales nShield HSMs

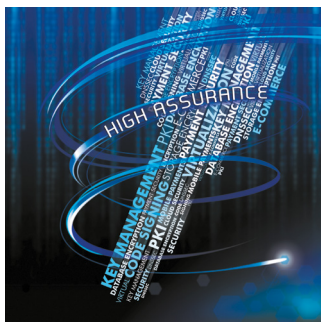


EMV is a moving target

- Adoption of EMV cards is gathering pace with the US being the latest country to launch a major migration program. However many other countries are still in the early stages of their EMV journey, causing many issuers to constantly review their risk management approach in order to minimize fraud. As an issuer, moving quickly to an EMV chip platform without a trusted solution provider is very difficult and can cause significant delays - not a desirable outcome in the fight against card fraud.

Thales and HST solutions

- There is significant flexibility in the way that EMV solutions can be implemented. Thales nShield hardware security modules (HSMs) play an integral part of the HST end-to-end EMV solutions that help solve critical needs in the payments value chain. In particular the secure data preparation and card personalization processes ensure that issuers have the flexibility to provide their customers with the best payment application and card platform for their needs – balancing flexibility with risk. HST provides comprehensive transaction processing modules that can help minimize fraud by early detection of potentially fraudulent transactions, providing issuers with a dynamic method of updating the consumer card after it has been issued – enabling flexibility and efficiency while helping to reduce operating costs.



HST SOLUTIONS FOR ISSUERS, ACQUIRERS AND SERVICE PROVIDERS WITH SECURITY ASSURED BY THALES NSHIELD HSMs

Preparing EMV data

HST Data Preparation provides the first step in the EMV migration process by enriching magnetic stripe data with the cryptographic and application data required to personalize and encode chip cards. Some of the key benefits of the HST EMV Data Preparation solution include support for:

- Multiple input and output file formats to provide more flexible integration with external systems
- Single and multiple application cards and multiple PANs/accounts on one card to minimize cost for issuers
- A wide range of card products and applications (for all major schemes in the Americas) to deliver greater choice for issuers
- Multiple operating system platforms

Thales nShield helps secure the EMV data preparation process by:

- Encrypting input and output files
- Utilizing banking grade key management
- Facilitating a PCI DSS compliant solution for sensitive data

Issuing payment cards

HST offers a broad range of solutions that enable cards to be issued in either batch mode (for central issuance) or online mode (for instant issuance in branches or stores) or provisioned on NFC handsets, providing operational flexibility.

The EMV Central Issuance solution allows card personalization bureaus or financial institutions to efficiently print high production volumes of personalized EMV cards from a secure, centralized facility guaranteeing compliance with strict global standards defined by organizations including PCI SSC and the major card schemes. The EMV Instant Issuance solution from HST enables banks to offer their customers the ability to walk into a bank branch to receive a fully functioning, active payment card with a user-defined PIN within minutes.

The benefits to issuers of deploying card issuance solutions include:

- Flexible architecture to support evolving investment and growth strategies for central issuance
- Reduced cost, improved customer experience, multiple printer integration for instant issuance
- Support for a wide range of card types including magstripe, EMV contact/contactless or dual interface and cards with photos
- Access to the HST Professional Services team for design and delivery of private label card solutions

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Thales nShield helps secure the card issuance process by:

- Securing the cryptographic key transfers between the data preparation and personalization environments
- Facilitating end-to-end data encryption throughout issuance process

Reducing risk of fraudulent transactions

The EMV Transaction Processor is designed for issuers to help authenticate cryptograms for EMV transactions or generate scripts for EMV cards to support dynamic risk management after initial issuance and deployment. The application operates in conjunction with the authorization system, fraud management system or switch, receiving all chip data coming from any channel connected to the issuer.

The benefits to issuers of using Transaction Processor include:

- Helps issuers authenticate EMV cryptograms and generate scripts for EMV cards
- Full PIN management support – PIN change and unblocking
- Flexibility to support multiple verification profiles to detect and minimize fraud
- Large data archive facility for off-line investigations fully compliant with PCI DSS standards

Thales nShield helps secure the payment authorization and fraud detection process by:

- Validating all cryptograms inside the HSM
- Protecting keys from attack at all times through use of tamper-resistant hardware
- Ensuring PINs are never exposed in the clear outside HSMs

Other HST products such as ATM Center integrate with the Thales payShield HSM. Further information on the entire line of HST payment solutions can be found at www.hstsoft.com

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