Prime Factors
Responsive Data Security

Bank Card
Security System

Prime Factors' Bank Card Security System (BCSS) is highly-specialized middleware used by leading issuers and secure personalization bureaus throughout the world. Customers rely on BCSS to minimize costs by reducing the amount of programming required to develop and maintain a secure card issuance platform that includes EMV data preparation. The software is backed by a dedicated support team that provides the answers you need during project planning, implementation and use.

Why develop when you can buy?
BCSS software fits into your in-house developed issuance platform to provide:

- Integrated key management including strong user policies and access controls
- HSM (hardware security module) integration
- Security code and PIN generation
- Verification for magnetic stripe and EMV cards
- EMV data preparation and key generation

Key Management Simplified
BCSS reduces the need for in-house expertise to program and keep a key management system constantly up-to-date. It also makes it easier for non-technical key custodians to play their designated role in key management for both magnetic stripe and EMV card issuance.
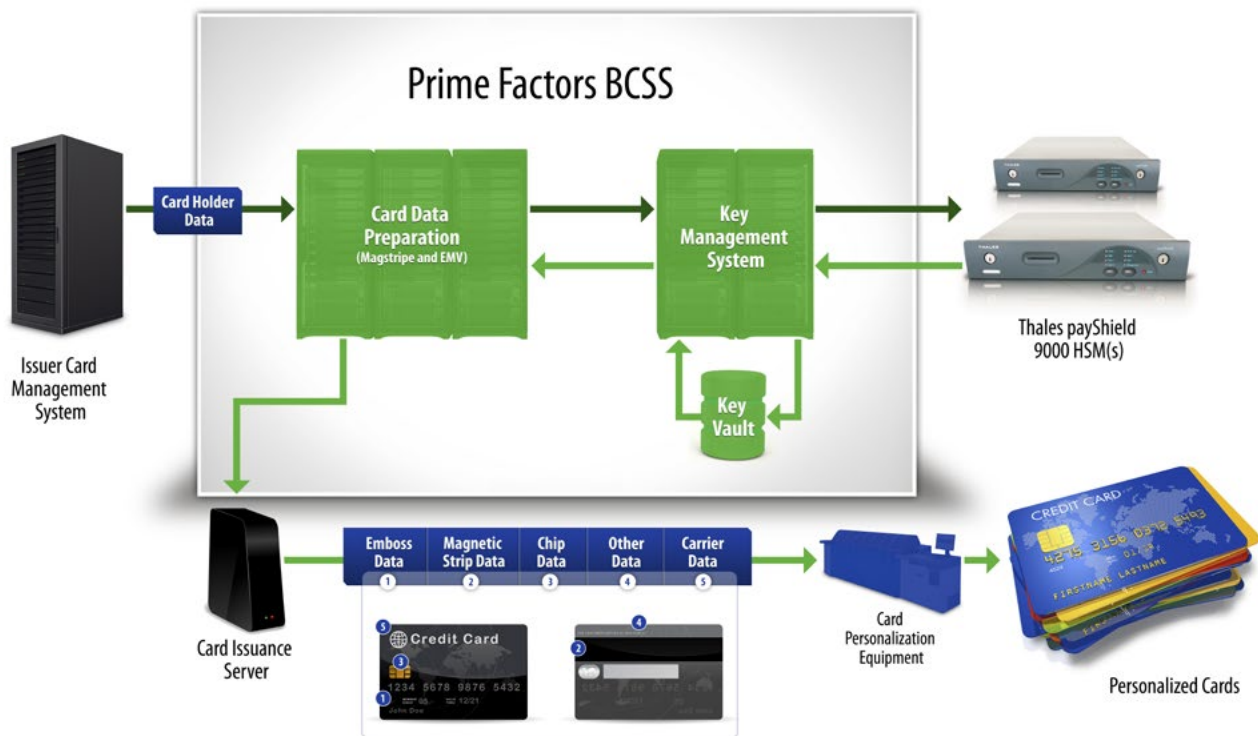
BCSS key management is a comprehensive, software-based system that incorporates hardware cryptography for secure operations. BCSS has built-in processes and workflows that meet key management requirements established by the network brands. BCSS key management consists of four elements:

- A key vault for storage of key values and attributes
- Comprehensive API library supporting programming languages such as C, C+, C#, COBOL, Java and Visual Basic
- A Thales HSM to ensure secure cryptographic operations
- Strong access controls and end user policies

Thales HSM Integration reduces programming
BCSS takes much of the hassle out of adding Thales HSMs to your in-house developed card issuance platform. Backed by a dedicated support team, BCSS eliminates programming required to make Thales HSMs work in accordance with requirements established by the network brands for security code creation, verification and key management.

With BCSS, there is no need to learn a proprietary machine level language to deploy the payShield 9000, Thales' most advanced payments HSM. Plus you no longer need to constantly upgrade your custom code to take advantage of new functionality in the Thales HSM firmware. BCSS and Thales HSM technology meet the latest logical security requirements of the network brands – Visa, MasterCard, Discover, American Express and JCB.

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Prime Factors BCSS

Issuer Card Management System → Card Holder Data → Card Data Preparation (Magstripe and EMV) ↔ Key Management System ↔ Thales payShield 9000 HSM(s)

Key Vault

Card Issuance Server → Emboss Data ① | Magnetic Strip Data ② | Chip Data ③ | Other Data ④ | Carrier Data ⑤ → Card Personalization Equipment → Personalized Cards

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Perform EMV data preparation in-house

BCSS includes an EMV data preparation module that shields issuers from the complexity of EMV card issuance, making it feasible to perform EMV data preparation in-house. The module gives you complete control of cardholder data and keys, and makes EMV data preparation as familiar and routine as magnetic stripe card issuance is today. The EMV module delivers a highly flexible output file that any card personalization system can interpret for processing.

FREE 30-DAY TRIAL

Download a fully functional version of BCSS at www.PrimeFactors.com.
During your 30-day trial, experience the personalized support that separates Prime Factors from the competition.

Time saving features for developers

BCSS provides a high level API that supports the following functionality:

- Create and verify card security codes (CVV, CVC, CSC etc)
- Create and verify user security codes (PINs and PVVs)
- Verification of ARQC and generation of ARPC cryptograms compliant with the latest EMV standards
- Transaction switching and verification
- PIN translation and PIN change
- PIN generation and PIN mailer printing support
- RSA key caching

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