

SOLUTION BRIEF

# Mainframe Encryption and Key Management with PKWARE and Gemalto

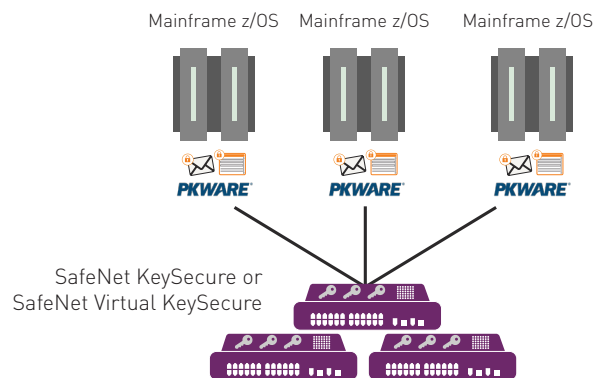
Organizations face a daily challenge to make data available to their customers and employees while also ensuring that this data is secure from internal and external threats. Add layers of regulations and the need to maximize returns on investments made in the datacenter, and organizations suddenly face a tough balancing act. Fortunately, PKWARE and Gemalto have a solution that keeps data secure and available, all while reducing strains on datacenter resources.

## Solution

PKWARE mainframe encryption couples with Gemalto’s SafeNet KeySecure key management appliance to offer an enterprise class security solution for IBM Mainframe z/OS operating environments. SafeNet ProtectApp encryption SDK links PKWARE’s Smartcrypt Platform to Gemalto’s key management appliance for a complete solution that ties security directly to sensitive data while offering administrators granular controls to further secure data from insider threats.

## PKWARE Smartcrypt Platform

PKWARE Smartcrypt Platform for z/OS offers organizations an encryption solution for mainframes using z/OS. Smartcrypt for z/OS is flexible; customers can embed encryption directly into their applications, or secure mainframe databases with field-level, length-preserving encryption. In any of its deployment scenarios, end-users see no change to their experience while organizations escape needing significant changes to their underlying infrastructure. As a bonus, the ability to compress data reduces strains on bandwidth and allows customers to derive greater return on storage investments.

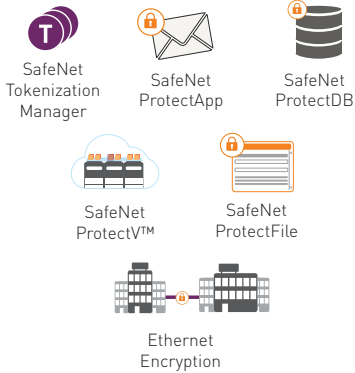


**Use Case:** Mainframe Encryption: z/OS Platform for z/OS,  
**Products Concerned:** PKWARE Smartcrypt Platform for z/OS, SafeNet ProtectApp and SafeNet KeySecure

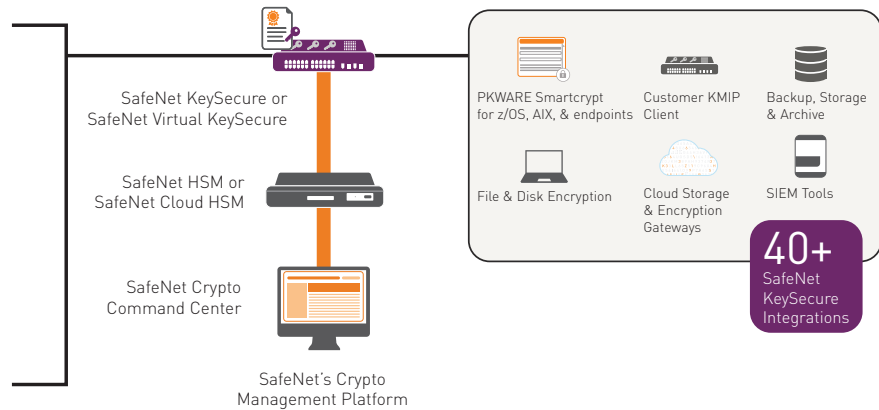
## SafeNet KeySecure

SafeNet KeySecure is an encryption and key management appliance that secures and centralizes the administration of Smartcrypt keys and certificates. Consolidating policy and key management simplifies administration to reduce the risk of errors and blindspots, while also freeing time for personnel to tackle other tasks. It makes key surveillance, rotation, and deletion easier which improves security.

## SafeNet's Data Encryption Solutions



## SafeNet's Key Management Ecosystem



### Benefits

- > **Persistent Data Security for z/OS**  
Encryption secures data wherever it resides while keys are stored in purpose-built hardware security modules on z Systems' hardware.
- > **Hardware Crypto Processing for Better Performance**  
With ICSF integration in Smartcrypt for z/OS, applications are enabled to leverage z Systems hardware crypto.
- > **Simplified Compliance**  
Centralized, efficient auditing of key management practices saves time and simplifies meeting compliance mandates.
- > **Secure All Forms of Data**  
PKWARE encryption is flexible enough to secure both structured and unstructured data.

### Key Features

#### Separated Administrative Duties Improves Security

Smartcrypt for z/OS attaches security directly to the data so that it will remain secure wherever it goes. SafeNet KeySecure's granular authorization controls limit risk posed by privileged insiders by constraining access to specific keys according to job responsibility. Ongoing storage and backup management occur normally; however, storage administrators cannot access data unless they are entrusted by policy with encryption keys.

#### Centralized Encryption Key Management

Smartcrypt for z/OS may be one of many encryption solutions used in a datacenter. Disparate solutions lead to key management silos, each with its own discrete enforcement policy. KeySecure centralizes and simplifies key management for Smartcrypt along with a broad ecosystem of third-party KMIP-compatible encryption solutions. Consolidating these solutions simplifies their management and auditability.

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### High Availability and Intelligent Key Sharing

SafeNet KeySecure deploys in flexible high availability (HA) configurations within an operations-center or across geographically dispersed centers using an active-active mode of clustering. Key information automatically replicates to other SafeNet KeySecure appliances within the cluster across multiple datacenters or clouds to ensure that keys are persistently available in the event of site disruptions.

### About Gemalto's SafeNet Identity and Data Protection Solutions

Gemalto's portfolio of Identity and Data Protection solutions offers one of the most complete portfolios of enterprise security solutions in the world, enabling its customers to enjoy industry-leading protection of data, digital identities, payments and transactions—from the edge to the core. Gemalto's SafeNet Identity and Data Protection solutions enable enterprises across many verticals, including major financial institutions and governments, to take a data-centric approach to security by utilizing innovative encryption methods, best-in-class crypto management techniques, and strong authentication and identity management solutions to protect what matters, where it matters. Through these solutions, Gemalto helps organizations achieve compliance with stringent data privacy regulations and ensure that sensitive corporate assets, customer information, and digital transactions are safe from exposure and manipulation in order to protect customer trust in an increasingly digital world.

  
security to be free