SMARTCRYPT FOR MAINFRAME
## Persistent Protection for Enterprise Data

PKWARE's Smartcrypt is the most flexible and powerful IBM Z encryption solution available. Smartcrypt protects both structured and unstructured data, gives customers the option to embed encryption directly into their applications, and can secure mainframe databases with field-level, length-preserving encryption.

Unlike other encryption products (including solutions that encrypt all data stored on the mainframe), Smartcrypt applies persistent protection that stays with data even after it leaves the mainframe environment. With Smartcrypt, encrypted data can be transmitted from the mainframe to user devices, web servers, or other external destinations while remaining inaccessible to unauthorized users.

Smart Encryption for Mainframes and Beyond

The Smartcrypt agent is installed on each system that will be used to access or store sensitive information, and encrypts data based on configured settings or operator commands.

Files encrypted by the Smartcrypt on IBM Z are fully compatible with Smartcrypt's solutions for file servers, user devices, and Power Systems, eliminating the need to decrypt data (and expose it to theft or misuse) before transmitting it for use elsewhere in the organization.
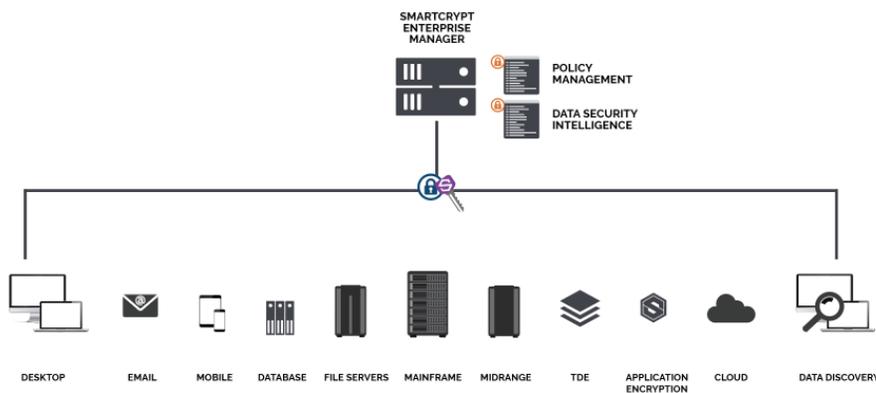
PRODUCT SUMMARY

» Installed on mainframe systems that are used to access or store sensitive data.

» Persistent encryption remains with data even when moved, copied, or shared outside the organization's network.

» Files encrypted by Smartcrypt on IBM Z can be accessed (by authorized users) on all other enterprise computing platforms.

» PKWARE's industry-best compression technology reduces file sizes before encryption.

SMARTCRYPT ENTERPRISE MANAGER

POLICY MANAGEMENT

DATA SECURITY INTELLIGENCE

DESKTOP   EMAIL   MOBILE   DATABASE   FILE SERVERS   MAINFRAME   MIDRANGE   TDE   APPLICATION ENCRYPTION   CLOUD   DATA DISCOVERY

High Capacity, High Performance

Smartcrypt exploits the IBM Z Integrated Cryptographic Services Facility, delivering faster and more efficient encryption/decryption processing than other non-native encryption products. Encryption performance overhead can be 5% or even less on z14 systems.

Smartcrypt delivers additional performance enhancements by using PKWARE's advanced compression functionality, reducing file sizes between 10 to 95 percent prior to encryption. Decreased file sizes dramatically reduce demands on CPU and storage resources, improving overall system performance. No other encryption solution offers smaller files post-encryption.

Protection Without Disruption

Smartcrypt automates encryption and decryption, so the process is transparent to the end user. Employees who store or access files in protected locations can continue to use their normal workflows.

Unmatched Flexibility

Smartcrypt's simple interface and cross-platform operability lets companies maintain their current processes while closing gaps in data protection, regardless of their IT architecture.

Encryption keys can be stored in purpose-built hardware security modules on IBM Z hardware, and are interoperable with third-party dedicated key management appliances. Smartcrypt also includes an automated interface for retrieving public keys from LDAP compliant directories, greatly increasing the ease of use of public keys for encryption in IBM Z processing.

The Smartcrypt Enterprise Manager for IBM Z simplifies licensing and provides a connection for managing keys in external key management systems.

TECHNICAL SPECIFICATIONS

OPERATING PLATFORMS
» z/OS 1.8 through z/OS 2.1

LANGUAGES AND FRAMEWORKS
» COBOL, ASM, PL/1, CICS
» JCL, Batch

ENCRYPTION ALGORITHMS
» AES 128, AES 192, AES 256, DES, 3DES, RC4

SIGNING ALGORITHMS
» SHA-1, SHA-256, SHA-384, SHA-512

KEY STORAGE AND RETRIEVAL
» Hardware: HSM
» Software: Keystore, ICSF-CKDS, PKDS, Security Server, RACF, ACF2, Top Secret

KEY INTERFACES
» LDAP

FILE ENCRYPTION CERTIFICATE AND KEY TYPES
» X.509 Digital Certificates
» OpenPGP