



DYNAMIC TOKEN LIFECYCLE MANAGEMENT

As more and more business is conducted over remote channels such as the internet and telephone, most industries, including banking and government have seen a sharp rise in fraud targeted at these channels. While customers demand the flexibility and ease of use of these new channels, businesses have recognised a need for strong authentication to protect both themselves and consumers. In many cases physical tokens are deployed to provide a higher level of authentication, such as payment cards, handheld readers, one time password tokens, etc. However, the issuer often reaches difficulty with the management of these physical tokens especially where the business is not traditionally based on distribution of hardware.

Cryptomathic Token Manager also offers management beyond physical tokens. It can be deployed to manage any virtual token such as mobile phone applications. The principles are similar although the lifecycle phases are simplified in the virtual world. Overall this means that a single solution can be used to manage the lifecycle of multiple token types across multiple distribution channels for multiple business purposes – a truly flexible solution.

System Architecture

The Cryptomathic Token Manager is a server solution designed to act as an integrated service that manages, monitors and automates not only the distribution but the usage and ongoing maintenance of tokens. As such it represents an invaluable integrator for existing business functions and the adoption of strong authentication.

Cryptomathic Token Manager is designed for simple integration with existing host-based applications and management systems. The architecture and interfaces are designed to minimise modification to legacy systems. In addition, by taking responsibility for all token lifecycle management, across multiple systems and channels, application development is simplified and the overall system security improved.



Cryptomathic Token Manager

Cryptomathic Token Manager is designed to provide full 'birth to death' lifecycle management of tokens to those organisations who require strong authentication tokens but have no existing management infrastructure. The product is designed to manage the end-to-end lifecycle of the token from the point at which it is initially requested, through its manufacture and distribution and on to its expiry and replacement. As part of this overall management process the issuer can also manage stock in several locations, handle multiple manufacturers and distributors and track various token types within a single implementation.

Tokens can be managed through a simple GUI interface on a customer services workstation or via direct web service integration into existing customer services workflow tools. The flexibility of this interface allows the token status to be managed at the single token level, the distributed packet level, the batch level or the stock location level. This allows a 'one click' management of both single tokens and groups of tokens which greatly simplifies the management of large or small volumes of tokens.

One of the keys to successful lifecycle management is a well defined yet flexible state model for the tokens' lifecycle. Cryptomathic Token Manager provides a set of core states which reflect the stages of token ordering, manufacturing, distribution and operation. In total there are 11 different states that a single token could adopt although there is no limitation here as the product also allows the issuer to define their own states and implement these anywhere in the existing lifecycle.

TECHNICAL SPECIFICATIONS

Application Architecture

- Multiple or single server implementation
- Simple integration through defined APIs
- Remote administration via GUI or
- Remote administration via web service
- Application-level clustering
- High availability
- Multiple platform support

Security Architecture

- AES protected network communication
- Access control via smart cards
- Secure environment using shared HSMs
- Tamper evident audit log of all events
- Dual controls for sensitive / critical commands
- Role-based separation of duties

Token Lifecycle States

- Logged
- Requested
- Manufactured
- Allocated
- Registered
- Active
- Suspended
- Blocked
- Cancelled
- Revoked
- Expired
- Plus fully customisable states

Operating Environment

- Microsoft Windows
- IBM AIX
- Any Java Runtime Environment (JRE)

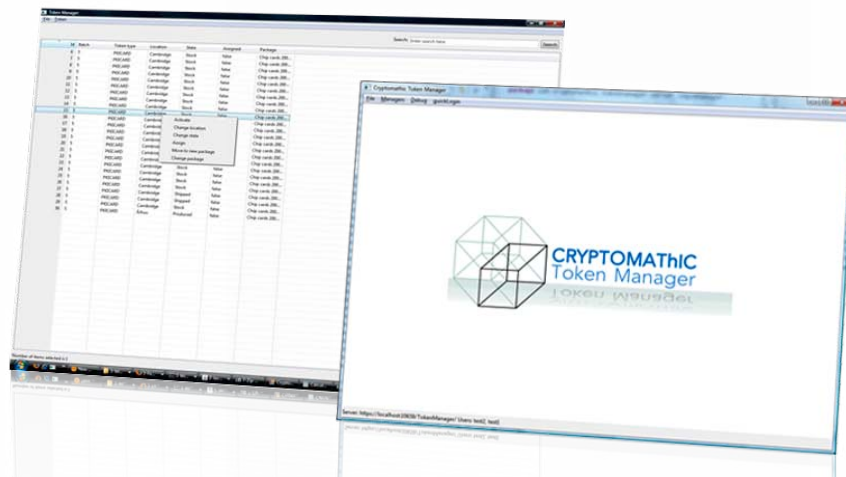
Database

- Oracle
- Microsoft SQL Server

FLEXIBILITY OF INTEGRATION:

Cryptomathic Token Manager is designed to be a stand-alone package for the day-to-day management of physical tokens. The interfaces are designed for smooth integration into existing systems and workflows through defined APIs and web service architecture. This end result is a functionally rich end-to-end token lifecycle management tool which can be easily and quickly implemented into existing business architecture to provide immediate benefits and therefore shortens time to market.

As well as being a stand-alone solution Cryptomathic Token Manager integrates with other Cryptomathic products in the authentication suite such as Cryptomathic Authenticator and Cryptomathic Signer. Further information of these Cryptomathic products and the whole authentication suit of products can be found on the Cryptomathic web site or by contacting your local Cryptomathic representative.



ABOUT CRYPTOMATHIC

Cryptomathic is one of the world's leading providers of security solutions to businesses across a wide range of industry sectors, including finance, smart card, digital rights management and government. With more than 20 years' experience, Cryptomathic provides customers with systems for e-banking, PKI initiatives, card personalization, ePassport, card issuing

and advanced key management utilizing best-of-breed security software and services. Cryptomathic prides itself on its strong technical expertise and unique market knowledge. Together with an established network of partners, Cryptomathic assists companies around the world with building security from requirement specification to implementation and delivery.

Learn more at cryptomathic.com