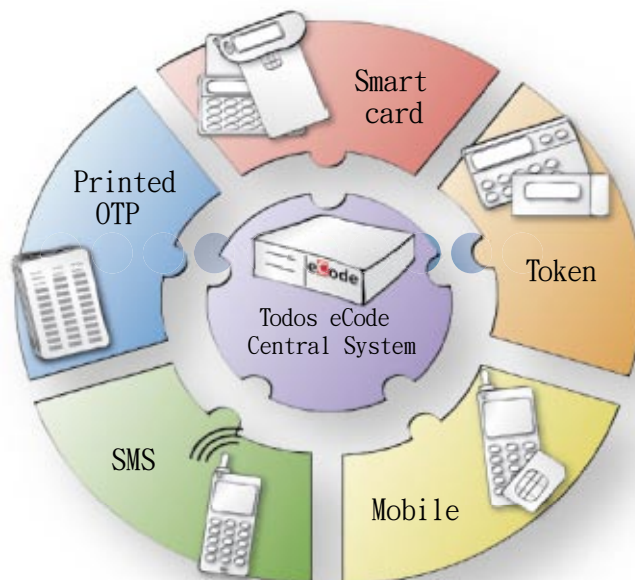


eCode Central System

The heart of the Todos eCode authentication solution



Todos eCode is a product portfolio for secure remote identification by smart card based generation of One Time Passwords (OTP), Challenge/Response and Electronic Signatures.

Todos eCode is a cost efficient, portable and secure authentication solution for e-Banking, e-Commerce, Online Shopping with 3-D Secure, Mobile Banking and Micro Payment. Todos eCode is platform and channel independent and provides the possibility to simultaneously authenticate users via Internet, PSTN, mobile network and LAN.

The Todos eCode solution is composed of three parts:

- Todos eCode Security Application on a smart card, issued by the bank, or SIM in a mobile handset.
- Smart card reader with LCD for the end user. Several models available, all portable.

**redundant,
easy to expand
when needed**

- Todos eCode Central System support functions such as:
 - Authentication
 - Personalisation
 - Key management
 - Customer Support Application

Advantages of Todos eCode Central System:

- Easy to use, easy to administrate
- Easy to integrate with existing systems
- Stable, battle proven solution
- Safe, uses the SSL protocol to protect transaction data
- Redundant, highly scalable, easy to expand when needed
- Clients for Call Centre/Web Server/Voice Response
- One Central System supports multiple OTP devices
- The end user may run several tokens, smart card and/or mobile phones in parallel

Technical Specifications

Functionality

- Verify One Time Passwords (OTP)
- Verify One Time Passwords with PIN (OTP w/ PIN)
- Verify Electronic Signatures
- Verify Passwords
- Double Authentication
- Printed One Time Passwords
- SMS sent One Time Passwords
- Personalisation data generation
- Personalisation of smart cards and token devices
- Data import
- Customer Support Application
- Key management
- Audit logs
- Statistics
- Support for Radius and Novell NMAS

Authentication methods

- Todos eCode, Todos eCode EMV, Todos eCode Mobile
- Mastercard SecureCode (Chip Authentication Programme)
- VISA 3-D Secure
- German Sm@rt TAN
- Taiwanese FISC II OTP
- One Time Passwords and Electronic Signatures

Hardware and software configuration

- Windows, Linux or AIX server
- Eracom PSO HSM or IBM 4758 HSM (Hardware Secure Module)

Performance

- up to 1800 verifications per second and server
- High scalability

Compliance to standards

- EMV '96, EMV 2000, EMV 2004
- MasterCard SecureCode, 3-D Secure CAP, CAP 2004
- German Sm@rt TAN
- Taiwanese FISC II OTP
- ISO 13491 (Secure Cryptographic devices)
- FIPS 140-1 level 3 (Security requirements of cryptographic modules)
- ISO 8732 (Key generation)
- ANSI X9.32 (Data Encryption Standard)
- ISO 11568 (Key management)
- ISO 9797 (Message Authentication Codes)

Certifications

- High level risk assessment by TNO

**MasterCard.
SecureCode.**

VISA
dynamic passcode
authentication

**FISC II
OTP**

Sm@rt TAN

3-D Secure CAP

EMV™